State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Tim Davis
Executive Director

DIVISION OF WASTE MANAGEMENT
AND RADIATION CONTROL

Douglas J. Hansen
Director

A meeting of the Waste Management and Radiation Control Board has been scheduled for November 13, 2025 at 1:30 p.m. at the Utah Department of Environmental Quality, (Multi-Agency State Office Building) Conference Room #1015, 195 North 1950 West, SLC.

Board members and interested individuals may participate electronically/telephonically.

Join via the Internet: meet.google.com/gad-sxsd-uvs
Join via the Phone: (US) +1 978-593-3748 PIN: 902 672 356#

AGENDA

I. Call to Order and Roll Call.

II. Public Comments on Agenda Items.

III. Declarations of Conflict of Interest.

IV. Approval of the meeting minutes for the October 9, 2025, Board Meeting ..... Tab 1 (**Board Action Item**).

V. Petroleum Storage Tanks Update ..... Tab 2

VI. 2025 Petroleum Storage Tanks Fund Actuarial Report Summary (**Information Item**).

VII. Petroleum Storage Tanks Rules ..... Tab 3

A. Approval from the Board to proceed with final adoption of proposed changes to Utah Administrative Code Rules R311-200, R311-201, R311-203, R311-204, and R311-212 to amend the Petroleum Storage Tank Rules (**Board Action Item**).

VIII. Administrative Rules ..... Tab 4

A. Five-Year Review of Utah Administrative Code Rules R313-26, R315-15, 17, 101, 102, 103, 124, 260, 261, 262, 263, 264, 265, 266, 268, 270 and 273 (**Information Item**).

B. Approval from the Board to proceed with final adoption of proposed changes to Utah Administrative Code Rules R315-260, 261, 262, 263, 264, 265, 266, and 270, to incorporate federal regulatory changes made by the U.S. Environmental Protection Agency (U.S. EPA). Additionally, the Division is incorporating additional requirements for the management of military munitions as requested by the U.S. EPA (**Board Action Item**).

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IX. Low-Level Radioactive Waste ..... Tab 5

A. Energy*Solutions*, LLC request for a one-time, site-specific treatment variance from the Utah Hazardous Waste Management Rule R315-268-40(a)(3) to receive, treat, and macroencapsulate incinerator ash waste containing Resource Conservation and Recovery Act (RCRA) metals with elevated levels of dioxins and furans as Underlying Hazardous Constituents (UHCs) (**Information Item**).

X. Energy*Solutions*, LLC request to the Northwest Interstate Compact (**Information Item**).

XI. Director's Report.

XII. Executive Director's Report.

XIII. Other Business.

A. Miscellaneous Information Items.
B. Scheduling of next Board Meeting (January 8, 2026).

XIV. Adjourn.

In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact LeAnn Johnson, Office of Human Resources at 385-226-4881, Telecommunications Relay Service 711, or by email at leannjohnson@utah.gov.

Waste Management and Radiation Control Board Meeting Minutes
Utah Department of Environmental Quality
Multi-Agency State Office Building (Conf. Room #1015)
195 North 1950 West, SLC
October 9, 2025
1:30 p.m.

Board Members Participating at Anchor Location: Brett Mickelson (Chair), Tim Davis, Neil Schwendiman

Board Members Participating Virtually: Dr. Richard Codell, Dr. Danielle Endres, Mark Franc, Dr. Steve McIff, Vern Rogers, Scott Wardle

Board Members Excused/Absent: Dennis Riding (Vice-Chair), Jeremy Hawk, Shane Whitney

UDEQ Staff Members Participating at Anchor Location: Doug Hansen, Brent Everett, Morgan Atkinson, Tom Ball, Brenden Catt, Larry Kellum, Arlene Lovato, Mike Pecorelli, Elisa Smith

Others Attending at Anchor Location: Steve Gurr

Other UDEQ employees and interested members of the public also participated either electronically or telephonically.

This meeting was recorded and an unedited audio of this meeting can be accessed at: **https://www.utah.gov/pmn/files/1335231.mp3**

I. Call to Order and Roll Call.

Chairman Mickelson called the meeting to order at 1:30 p.m. Roll call of Board members was conducted; see above.

II. Public Comments on Agenda Items – None.

III. Declarations of Conflict of Interest.

Vern Rogers declared a conflict of interest and abstained from voting on Agenda Item VII.

IV. Approval of the meeting minutes for the September 11, 2025, Board meeting (Board Action Item).

It was moved by Neil Schwendiman and seconded by Scott Wardle and UNANIMOUSLY CARRIED to approve the September 11, 2025, Board meeting minutes.

V. Petroleum Storage Tanks Update.

Brent Everett, Director of the Division of Environmental Response and Remediation (DERR), informed the Board that the cash balance of the Petroleum Storage Tank (PST) Enterprise Fund for the end of September 2025 was $39,860,236.00. The DERR continues to monitor the balance of the PST Enterprise Fund closely to ensure sufficient cash is available to cover qualified claims for releases.

Director Everett informed the Board that the PST Program rules are out for public comment as approved by the Board in September. The public comment period runs from October 1-31, 2025. A public hearing is scheduled for October 15, 2025, at 12:00 pm, in Room 1015 of the Multi-Agency State Office Building.

There were no comments or questions for Director Everett.

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VI. Administrative Rules.

A. Approval from the Board to proceed with formal rulemaking and public comment on proposed changes to Utah Administrative Code R313-24, to incorporate federal regulatory changes made by the Nuclear Regulatory Commission (NRC) to the federal radioactive materials regulations in 2023 (88 FR 57873). The changes are necessary to maintain regulatory compatibility with the NRC as required because Utah is an Agreement State with the NRC (Board Action Item).

Tom Ball, X-Ray and Technical Support Section Manager in the Division of Waste Management and Radiation Control (Division), reviewed the request for approval from the Board to proceed with formal rulemaking and public comment on proposed changes to Utah Administrative Code R313-24, to incorporate federal regulatory changes made by the Nuclear Regulatory Commission (NRC) to the federal radioactive materials regulations.

The NRC has amended its regulations to make miscellaneous corrections. These changes include updating organizational information, revising an address, and correcting reference, spelling, and grammatical errors. The amendments also make updates to replace gendered terms with inclusive, gender-neutral language. As an Agreement State with the NRC for the radioactive materials program, Utah is required to maintain regulatory compatibility with the corresponding NRC radioactive materials regulations. The Division is adopting the changes that the NRC designated as necessary for an Agreement State to adopt to maintain regulatory compatibility with the NRC.

In addition to the proposed changes detailed above, the Division is correcting typographical and formatting errors found in the rules.

This is a Board action item. The Director recommends the Board approve proceeding with formal rulemaking and public comment by publishing in the November 1, 2025, *Utah State Bulletin* the proposed changes to Utah Admin. Code R313-24 and conducting a public comment period from November 1, 2025, to December 1, 2025.

There were no comments or questions for Tom Ball.

It was moved by Dr. Richard Codell and seconded by Scott Wardle and UNANIMOUSLY CARRIED for the Board to proceed with formal rulemaking by publishing in the November 1, 2025, *Utah State Bulletin* the proposed changes to Utah Administrative Code R313-24, to incorporate federal regulatory changes made by the Nuclear Regulatory Commission (NRC) to the federal radioactive materials regulations in 2023 (88 FR 57873) and conducting a public comment period from November 1, 2025, to December 1, 2025.

VII. Low-Level Radioactive Waste.

A. Energy*Solutions* request for a one-time site-specific treatment variance from the Utah Hazardous Waste Management Rules. Energy*Solutions* seeks authorization to dispose, in Energy*Solutions*' Mixed Waste Landfill Cell, waste containing D009 and/or U151 High Mercury-Organic Subcategory and High Mercury-Inorganic Subcategory hazardous waste codes that have been treated using stabilization/amalgamation technologies (Board Action Item).

Larry Kellum, Low-Level Radioactive Section Manager in the Division of Waste Management and Radiation Control, reviewed Energy*Solutions'* request for a one-time site-specific treatment variance from Utah Administrative Code R315-268-40(a)(3).

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This variance is to permit the disposal of less than 2,500 cubic feet of waste containing trace quantities of D009 and/or U151 high mercury subcategory hazardous waste in Energy*Solutions*' Mixed Waste Landfill Cell.

Energy*Solutions'* proposal is to utilize stabilization or amalgamation technology to treat the waste ensuring that the final material meets the strict Toxicity Characteristic Leaching Procedure (TCLP) standards of or prior to disposal.

Mr. Kellum stated that there is valid justification to seek this variance. The current listed regulatory treatments for these specific waste codes, incineration (IMERC) or retorting/roasting for mercury recovery (RMERC), are primarily intended for mercury recovery. However, when treating radioactive mercury, the recovery aspect is inappropriate. For instance, the IMERC process generates a secondary waste of radioactive elemental mercury, which still requires stabilization by amalgamation before disposal. Therefore, a direct chemical stabilization and amalgamation would achieve an equivalent measure of performance and safety while ensuring site personnel radiological exposures are kept as low as reasonably achievable.

The U.S. Environmental Protection Agency (U.S. EPA) has acknowledged this concern and has concluded that radioactive mercury bearing waste that the recovery portion of RMREC may not be appropriate and recommends stakeholders utilize a site-specific treatment variance process. This site-specific treatment variance process is being requested in this Board action item.

Energy*Solutions* has successfully requested and implemented this specific variance for high mercury subcategory waste 20 times since 2001 and has consistently achieved compliant treatment levels.

A notice for public comment was published in the Salt Lake Tribune, the Deseret News, and the Tooele Transcript-Bulletin on September 3, 2025. The 30-day public comment period began September 4, 2025, and ended on October 3, 2025; no public comments were received.

The Director recommends approval of this variance request. The Director's recommendation is based on the following findings: the proposed alternative treatment method meets the regulatory basis for a variance and will be as safe for human health and the environment as the required regulatory method.

Dr. Danielle Endres asked whether this particular type of waste is treated at facilities other than Energy*Solutions* and, if so, are the same methods used. Mr. Kellum explained the difference with this particular waste is the waste contains a radiological component. Typically the waste is treated using an incineration and retorting process, but in this instance, due to the radiological component, a one-time site-specific variance request is being requested. Mr. Kellum confirmed that Energy*Solutions'* Clive Facility is the only facility that handles this type of waste.

It was moved by Dr. Steve McIff and seconded by Dr. Richard Codell and UNANIMOUSLY CARRIED to approve Energy*Solutions* LLC's request for a one-time site-specific treatment variance from the Utah Hazardous Waste Management Rules to dispose in Energy*Solutions*' Mixed Waste Landfill Cell waste containing D009 and/or U151 High Mercury-Organic Subcategory and High Mercury-Inorganic Subcategory hazardous waste codes that have been treated using stabilization/amalgamation technologies (Vern Rogers abstained from voting.)

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VIII. Director's Report.

Director Hansen provided an update on his presentation to the Natural Resources, Agriculture, and Environment Interim Committee (Committee) during their September meeting. Director Hansen reported that during the presentation, he discussed proposed adjustments to the Division's Used Oil Program fee structures and the collection of fees. Director Hansen stated he was able to present the issues and generally has Committee support on what he proposed. Director Hansen commented that members of the Committee had a few questions and the Division is currently addressing those questions and anticipates addressing the Committee again during their October meeting. Director Hansen remarked that all indications suggest that the Division can expect the Committee to approve a bill, which should streamline the process before the 2026 Utah State Legislature convenes.

Director Hansen stated that also during the September's Committee, Stevie Norcross, Assistant Division Director, presented the results of a Statewide Glass Recycling Study. Director Hansen commented that he found the results of the study interesting and believes the Board would also benefit in hearing the results, and remarked that the Board will hear the results at a future Board meeting as an information item.

Director Hansen provided a brief update on the federal government shutdown and its current impact to the Division. Director Hansen reported that so far the impacts of the federal government shutdown have not significantly impacted relationships with the U.S. EPA, as he recently attended the U.S. EPA Region 8 Director's Meeting in Rapid City, S.D. where his U.S. EPA counterparts were in attendance. However, Director Hansen commented that the impacts of the federal government shutdown are impacting interactions with Nuclear Regulatory Commission (NRC), as some meetings have been canceled. The NRC is currently operating with essential personnel only, with a liaison available to answer questions. Director Hansen stated that the Division will continue monitoring the federal government shutdown impacts closely and will keep the Board apprised of any new developments and stated he remains optimistic that our federal government partners will be back in full operation soon.

Director Hansen reminded the Board that last month the Board approved final adoption of rule changes to the Coal Combustion Residual Rules. A draft package for state program approval was submitted to the U.S. EPA for feedback. Once that feedback is reviewed, the necessary revisions will be made for a formal submittal. Director Hansen commented that the Division is looking forward to administering this program at the state level opposed to having the federal government administer it.

Mark Franc inquired about the UDEQ "Talking Trash" seminar being held on October 23, 2025. Director Hansen explained that the seminar is the Solid Waste Program's first inaugural stakeholder training that will include conversations with issues that impact to the solid waste community. The seminar will also include addressing permitting and compliance matters. Direcor Hansen announced that the seminar will be recorded and made available to all interested individuals. Mr. Franc commented that the upcoming seminar would be an excellent opportunity for a Board member to attend and to explain the Board's role and the various opportunities available for public comment on various matters. Mr. Franc specifically nominated Chairman Mickelson to attend this seminar.

IX. Executive Director's Report.

Executive Director Davis stated he also wanted to provide an update regarding the federal government shutdown and its impacts on UDEQ. Executive Director Davis informed the Board that he successfully worked with U.S. EPA, Region 8 to secure Performance Partnership Grant Funding for UDEQ. This, combined with existing state funds, fees, and other federal grants, provides the department with some additional flexibility during this time. Executive Director Davis stated that he has previously communicated this information to all UDEQ staff via email.

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Executive Director Davis shared his immediate concerns regarding the federal government shutdown, specifically the impact of 89% of U.S. EPA staff being furloughed. He noted that while UDEQ should be fine for the time being, the department relies on the U.S. EPA for several critical actions, which will likely be delayed.

Executive Director Davis commented that one such action is the recently submitted Draft Coal Combustion Residual Package, currently awaiting U.S. EPA review. Executive Director Davis expressed that these are the types of essential tasks that the department needs the U.S. EPA to complete, and he anticipates significant slowdowns. Executive Director Davis stated that he has communicated these concerns to the legislature and the Governor's office and wanted to communicate them to the Board as well.

Executive Director Davis also informed the Boad that the federal government shutdown may impact his planned meetings in Washington D.C. at the end of the month; he is scheduled to meet with U.S. EPA and NRC leadership to discuss joint priorities between the NRC, U.S. EPA, and Utah.

There were no comments or questions for Executive Director Davis.

X. Other Business.

A. Miscellaneous Information Items. – None.

B. Scheduling of next Board meeting (November 13, 2025).

The next Board meeting is scheduled for November 13, 2025, at the Utah Department of Environmental Quality, Multi-Agency State Office Building.

Interested parties can join via the Internet at: meet.google.com/gad-sxsd-uvs
Or by phone at (US) +1 978-593-3748 PIN: 902 672 356#

XI. Adjourn.

The meeting adjourned at 1:55 p.m.

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PST STATISTICAL SUMMARY
October 1, 2024 -- September 30, 2025

PROGRAM

	October	November	December	January	February	March	April	May	June	July	August	September	(+/-) OR Total
Regulated Tanks	4,841	4,849	4,855	4,859	4,869	4,886	4,897	4,907	4,902	4,907	4,912	4,906	**65**
Tanks with Certificate of Compliance	4,644	4,651	4,661	4,668	4,670	4,674	4,682	4,683	4,692	4,695	4,701	4,721	**77**
Tanks without COC	197	198	194	191	199	212	215	223	210	212	211	185	**(12)**
Cumulative Facilitlies with Registered A Operators	1,265	1,265	1,266	1,270	1,262	1,278	1,271	1,272	1,254	1,267	1,271	1,273	**83.64%**
Cumulative Facilitlies with Registered B Operators	1,278	1,278	1,279	1,283	1,276	1,280	1,273	1,273	1,256	1,266	1,270	1,272	**83.57%**
New LUST Sites	4	4	3	11	2	9	6	4	8	5	12	7	**75**
Closed LUST Sites	4	3	7	9	6	6	4	5	3	8	5	3	**63**
Cumulative Closed LUST Sites	5711	5717	5724	5733	5739	5741	5748	5751	5758	5765	5768	5774	**63**

FINANCIAL

	October	November	December	January	February	March	April	May	June	July	August	September	(+/-)
Tanks on PST Fund	3,032	3,039	3,049	3,056	3,056	3,052	3,064	3,059	3,067	3,064	3,062	3,084	**52**
PST Claims (Cumulative)	734	734	734	734	738	738	741	740	740	739	739	739	**5**
Equity Balance	$6,991,673	$7,429,379	$7,556,156	$7,848,489	$8,280,893	$8,218,397	$8,511,914	$9,321,582	$9,640,627	$9,913,949	$10,715,671	$9,541,937	**$2,550,264**
Cash Balance	$37,309,972	$37,747,678	$37,874,455	$38,166,788	$38,599,192	$38,536,696	$38,830,213	$39,639,881	$39,958,926	$40,232,248	$41,033,970	$39,860,236	**$2,550,264**
Loans	0	0	0	0	0	0	0	0	0	0	0	2	**2**
Cumulative Loans	129	129	129	129	129	129	129	129	129	129	129	131	**2**
Cumulative Amount	$6,213,705	$6,213,705	$6,213,705	$6,213,705	$6,213,705	$6,213,705	$6,123,705	$6,123,705	$6,123,705	$6,123,705	$6,123,705	$6,520,492	**$306,787**
Defaults/Amount	0	0	0	0	0	1	1	2	2	2	2	2	**2**

	October	November	December	January	February	March	April	May	June	July	August	September	TOTAL
Speed Memos	135	103	241	78	127	135	199	135	165	135	114	118	**1,685**
Compliance Letters	17	5	12	13	7	8	11	18	10	9	11	8	**129**
Notice of Intent to Revoke	0	0	0	0	0	1	0	0	0	0	0	0	**1**
Orders	0	1	0	1	0	0	0	0	2	1	0	0	**5**

Approval from the Board to proceed with final adoption of proposed changes to Utah Administrative Code Rules R311.

The Division of Environmental Response and Remediation (DERR) is proposing changes to Utah Administrative Code Rules R311-200, R311-201, R311-203, R311-204, and R311-212 to amend the Petroleum Storage Tank Rules These changes are presented as an action item requesting Board approval to proceed with final adoption.

Background:
On February 27, 2025, Utah's Governor Spencer Cox signed H.B. 18 Petroleum Storage Tank Amendments, which became effective on May 7, 2025. This bill marks the first changes to the Petroleum Storage Tank Act since the introduction of aboveground petroleum storage tank (APST) regulations in 2021.

Key changes enacted by H.B. 18 include:

- **Notification Requirements for APST Owners/Operators:** Owners and operators of APSTs are now required to notify the DERR of any change in ownership, new installations, or upgrades/repairs to their tanks.
- **Revised Definition of PST Certifications:** The definition of "Underground Storage Tank Removers, Testers and Installers" has been updated to the broader "Petroleum Storage Tank Removers, Testers and Installers" to reflect the inclusion of APSTs.
- **Installation Permit and Fee Requirements:** Petroleum storage tank installation companies must now obtain an install permit for all PST installations, including APSTs, at least 30 days before the installation begins. Associated fees must also be paid at least 30 days prior to the start of the installation.
- **APST Loan Program Eligibility:** Owners and operators of APSTs are now eligible to apply for loans from the Petroleum Storage Tank Fund Loan Program for the purpose of upgrading, replacing, or permanently closing an APST.

Additionally, other minor rule changes are proposed to clarify existing requirements for owners and operators of PSTs, without imposing any new obligations on these entities.

Summary of the Proposed Changes:

R311-200. Petroleum Storage Tanks: Definitions.

- R311-200-1(2)(mm): Definition of “petroleum storage tank” is added to reflect the statutory definition and inform other uses of the term in the PST Rules.
- Changes made in H.B. 18 Petroleum Storage Tank Amendments required that the definitions be updated in rule. “Eligible exempt UST”, “UST inspector”, “UST installation”, “UST repair and service”, “UST installation permit fee”, “UST installer”, “UST removal”, “UST remover” and “UST tester” were changed to “Eligible exempt PST”, “PST inspector”, “PST installation”, “PST repair and service”, “PST installation permit fee”, “PST installer”, “PST removal”, “PST remover” and “PST tester”, respectively.
- R311-200-1(2)(a)(iii)(J): Further detailed that the exemption of APSTs that contain a de minimis concentration of regulated substances applies only to aboveground storage tanks last used prior to May 5, 2021.
- R311-200-1(2)(fff)(ii): Changed the definition “Secondary Containment” to remove a reference to a rule that was deleted in a prior rule change.
- Non-substantive internal rule references changed to reflect changes made in these amendments.

R311-201. Petroleum Storage Tanks: Certification Programs and UST Operator Training.

- In multiple parts of this rule the following terms were changed: UST inspector to PST Inspector, UST tester to PST tester, UST installer to PST installer and UST remover to PST remover.
- R311-201-12(10)(d)(ii): The document, as referenced in this rule, "UST and LUST Performance Definitions as of October 2018", was previously incorporated by reference. This document is vague when pertaining to retraining requirements. This document will be removed as a reference in the rule and will instead refer directly to specific conditions within EPA regulations that trigger the need for retraining.

R311-203. Petroleum Storage Tanks: Technical Standards

- R311-203-2: Changes were made to notification requirements for work on Petroleum Storage Tanks. Notification is required no later than 30 days before completion of the work on PSTs or change of ownership of PST sites.
- R311-203-3: Changes were made for the time frame for notification of new installation permits. Certified PST installers must notify the director (DERR) 30 days before commencing work on PSTs.
- R-311-203-5: Rule changes in this subsection aim to clarify the existing PST testing requirements for owners or operators of APSTs. There are no additional requirements being imposed on these entities.
- UST was changed to PST where appropriate.

R311-204. Petroleum Storage Tanks: Closure and Remediation.

- R311-204-2(1)(a): H.B. 18 struck out Subsection 19-6-407(2)(a)(iii) which is referenced in this rule for the requirement for 30-day notification for closure of APSTs. The requirement for 30-day notification before the closure for Aboveground Petroleum Storage tanks (APSTs) was added to match the requirement for Underground Storage Tanks (USTs).
- R311-204-5(2): Changed “UST remover” to “PST remover” due to the definition change in H.B. 18.

R311-212. Administration of the Petroleum Storage Tank Fund Loan Program.

- The term “Underground Storage Tanks” (USTs) has been updated to the broader term "Petroleum Storage Tanks” (PSTs) in multiple parts of this rule since “Aboveground Petroleum Storage Tanks” (APSTs) are now permitted to apply for a loan from the Petroleum Storage Tanks Loan Program.

The tentative adoption schedule for the proposed rule changes is:

Informal request for comments from PST Stakeholders	July and August, 2025
Present to Board as informational item with text of proposed changes	July 10, 2025
Request for Board approval for publication and public comment	September 11, 2025
Publication in the *Utah State Bulletin*	October 1, 2025
Public comment period (per admin. rules)	Oct 1 – Oct 31, 2025
Public hearing	October 15, 2025
Board approval for final adoption	**November 13, 2025**
Final effective date of new rules	**November 14, 2025**

Pages from the October 1, 2025, issue of the *Utah State Bulletin* showing the publication of the proposed changes follow this Executive Summary. The public comment period for this rulemaking ended on October 31, 2025; no comments were received.

This matter is a Board action item. The Director recommends the Board’s approval to proceed with final adoption of the proposed changes to Utah Administrative Code Rules R311-200, R311-201, R311-203, R311-204, and R311-212 to amend the Petroleum Storage Tank Rules as published in the October 1, 2025, *Utah State Bulletin* and set an effective date of November 14, 2025.

UTAH STATE BULLETIN

OFFICIAL NOTICES OF UTAH STATE GOVERNMENT
Filed September 03, 2025, 12:00 a.m. through September 15, 2025, 11:59 p.m.

Number 2025-19
October 01, 2025

Nancy L. Lancaster, Managing Editor

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The Portable Document Format (PDF) version of the *Bulletin* is the official version. The PDF version of this issue is available at https://rules.utah.gov/. Any discrepancy between the PDF version and other versions will be resolved in favor of the PDF version.

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The information in this *Bulletin* is summarized in the *Utah State Digest (Digest)* of the same volume and issue number. The *Digest* is available by e-mail subscription or online. Visit https://rules.utah.gov/ for additional information.

Office of Administrative Rules, Salt Lake City 84114

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TABLE OF CONTENTS

EXECUTIVE DOCUMENTS **1**

PROCLAMATION

2025-05E 1

NOTICES OF PROPOSED RULES **2**

GOVERNMENT OPERATIONS, DATA PRIVACY

R18-1. Relief from Data Privacy Requirements 3

GOVERNMENT OPERATIONS, GOVERNMENT RECORDS OFFICE

R20-1. Definitions for Rules in Title R20 6

R20-3. Government Records Office Hearing Procedures 8

R20-4. Filing and Declining Hearings 11

R20-5. Compliance with Director Decisions and Orders 13

R20-6. Subpoenas Issued by the Director 15

R20-7. Expedited Hearing 18

AGRICULTURE AND FOOD, SPECIALIZED PRODUCTS

R66-2. Cannabis Processing 20

R66-6. Home Delivery and Courier 29

R66-29. Compliance Procedures 36

EDUCATION, ADMINISTRATION

R277-125. Small School District Capital Projects 39

R277-301. Educator Licensing 43

R277-318. Teacher Salary Supplement Program 51

R277-400. School Facility Emergency and Safety 54

R277-622. School-based Mental Health Qualifying Grant Program 61

R277-726. Statewide Online Education Program (SOEP) 66

R277-800. Utah Schools for the Deaf and the Blind (USDB) 81

ENVIRONMENTAL QUALITY, AIR QUALITY

R307-801. Utah Asbestos Rule 88

ENVIRONMENTAL QUALITY, DRINKING WATER

R309-305. Cross Connection Control and Backflow Prevention Certification 104

ENVIRONMENTAL QUALITY, ENVIRONMENTAL RESPONSE AND REMEDIATION

R311-200. Petroleum Storage Tanks: Definitions 114

R311-201. Petroleum Storage Tanks: Certification Programs and UST Operator Training 120
R311-203. Petroleum Storage Tanks: Technical Standards 130
R311-204. Petroleum Storage Tanks: Closure and Remediation 137
R311-212. Administration of the Petroleum Storage Tank Fund Loan Program 141
ENVIRONMENTAL QUALITY, WASTE MANAGEMENT AND RADIATION CONTROL, WASTE MANAGEMENT
R315-260. Hazardous Waste Management System 147
R315-261. General Requirements – Identification and Listing of Hazardous Waste 160
R315-262. Hazardous Waste Generator Requirements 186
R315-263. Standards Applicable to Transporters of Hazardous Waste and Standards Applicable to Emergency Control of Spills for Any Hazardous Waste Handlers 213
R315-264. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities 218
R315-265. Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities 240
R315-266. Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities 251
R315-270. Hazardous Waste Permit Program 271
GOVERNOR, ECONOMIC OPPORTUNITY
R357-13. Hotel Convention Center Incentive 278
MONEY MANAGEMENT COUNCIL, ADMINISTRATION
R628-4. Bonding of Public Treasurers 282
R628-12. Certification of Qualified Depositories for Public Funds 285
TAX COMMISSION, ADMINISTRATION
R861-1A-26. Procedures for Formal Adjudicative Proceedings Pursuant to Utah Code Ann. Sections 59-1-501 and 63G-4-204 through 63G-4-209 289
R861-1A-34. Private Letter Rulings Pursuant to Utah Code Ann. Section 59-1-210 293
TAX COMMISSION, PROPERTY TAX
R884-24P-19. Appraiser Designation Program Pursuant to Utah Code Ann. Sections 59-2-701 and 59-2-702 295
R884-24P-33. 2026 Personal Property Valuation Guides and Schedules Pursuant to Utah Code Ann. Section 59-2-107 302

R884-24P-53. 2026 Guides for Valuation of Land Subject to the Farmland Assessment Act Pursuant to Utah Code Ann. Section 59-2-515 316

TRANSPORTATION COMMISSION, ADMINISTRATION

R940-4. Airports of Regional Significance 328

NOTICES OF 120-DAY (EMERGENCY) RULES 331

GOVERNOR, ECONOMIC OPPORTUNITY

R357-13. Hotel Convention Center Incentive 331

FIVE-YEAR NOTICES OF REVIEW AND STATEMENTS OF CONTINUATION 336

GOVERNMENT OPERATIONS, ADMINISTRATIVE RULES (OFFICE OF)

R15-2. Public Petitioning for Rulemaking 336

R15-3. Administrative Rules: Scope, Content, and When Required 337

R15-4. Administrative Rulemaking Procedures 338

R15-5. Administrative Rules Adjudicative Proceedings 339

AGRICULTURE AND FOOD, PLANT INDUSTRY

R68-8. Utah Seed Rule 340

COMMERCE, PROFESSIONAL LICENSING

R156-9. Funeral Service Licensing Act Rule 341

R156-61a. Behavior Analyst Licensing Act Rule 342

EDUCATION, ADMINISTRATION

R277-701. Early College Programs 343

R277-723. Start Smart Utah Program 344

NOTICES OF RULE EFFECTIVE DATES 346

EXECUTIVE DOCUMENTS

Under authority granted by the Utah Constitution and various federal and state statutes, the Governor periodically issues **EXECUTIVE DOCUMENTS**, which can be categorized as either Executive Orders, Proclamations, and Declarations. Executive Orders set policy for the executive branch; create boards and commissions; provide for the transfer of authority; or otherwise interpret, implement, or give administrative effect to a provision of the Constitution, state law or executive policy. Proclamations call special or extraordinary legislative sessions; designate classes of cities; publish states-of-emergency; promulgate other official formal public announcements or functions; or publicly avow or cause certain matters of state government to be made generally known. Declarations designate special days, weeks or other time periods; call attention to or recognize people, groups, organizations, functions, or similar actions having a public purpose; or invoke specific legislative purposes (such as the declaration of an agricultural disaster).

The Governor's Office staff files **EXECUTIVE DOCUMENTS** that have legal effect with the Office of Administrative Rules for publication and distribution.

PROCLAMATION

WHEREAS, since the close of the 2025 General Session of the 66th Legislature of the state of Utah, certain matters have arisen which require immediate legislative attention; and

WHEREAS, Article VII, Section 6 of the Constitution of the state of Utah provides that the governor may, by proclamation, convene the Senate into Extraordinary Session; and

NOW, THEREFORE, I, Spencer J. Cox**,** governor of the state of Utah, by virtue of the authority vested in me by the Constitution and Laws of the state of Utah, do by this Proclamation call the Senate only of the 66th Legislature of the state of Utah into the Fifth Extraordinary Session at the Utah State Capitol in Salt Lake City, Utah, on the 16th day of September 2025, at 4:00 p.m., for the following purpose:

For the Senate to consent to appointments made by the Governor to positions within state government of the state of Utah since the close of the 2025 General Session of the Legislature of the state of Utah.

IN TESTIMONY WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the state of Utah. Done at the Utah State Capitol in Salt Lake City, Utah, this 15th day of September 2025.

(State Seal)

Spencer J. Cox
Governor

ATTEST:

Deidre M. Henderson
Lieutenant Governor

2025-05E

End of the Executive Documents Section

NOTICES OF
PROPOSED RULES

A state agency may file a **PROPOSED RULE** when it determines the need for a substantive change to an existing rule. With a **NOTICE OF PROPOSED RULE**, an agency may create a new rule, amend an existing rule, repeal an existing rule, or repeal an existing rule and reenact a new rule. Filings received between September 03, 2025, 12:00 a.m., and September 15, 2025, 11:59 p.m. are included in this, the October 01, 2025, issue of the *Utah State Bulletin*.

In this publication, each **PROPOSED RULE** is preceded by a **RULE ANALYSIS**. This analysis provides summary information about the **PROPOSED RULE** including the name of a contact person, anticipated cost impact of the rule, and legal cross-references.

Following the **RULE ANALYSIS**, the text of the **PROPOSED RULE** is usually printed. New rules or additions made to existing rules are underlined (example). Deletions made to existing rules are struck out with brackets surrounding them ([~~example~~]). Rules being repealed are completely struck out. A row of dots in the text between paragraphs (**. . . . . .**) indicates that unaffected text from within a section was removed to conserve space. Unaffected sections are not usually printed. If a **PROPOSED RULE** is too long to print, the Office of Administrative Rules may include only the **RULE ANALYSIS**. A copy of each rule that is too long to print is available from the filing agency or from the Office of Administrative Rules.

The law requires that an agency accept public comment on **PROPOSED RULES** published in this issue of the *Utah State Bulletin* until at least October 31, 2025. The agency may accept comment beyond this date and will indicate the last day the agency will accept comment in the **RULE ANALYSIS**. The agency may also hold public hearings. Additionally, citizens or organizations may request the agency hold a hearing on a specific **PROPOSED RULE**. Section 63G-3-302 requires that a hearing request be received by the agency proposing the rule "in writing not more than 15 days after the publication date of the proposed rule."

From the end of the public comment period through January 29, 2026, the agency may notify the Office of Administrative Rules that it wants to make the **PROPOSED RULE** effective. The agency sets the effective date. The date may be no fewer than seven calendar days after the close of the public comment period nor more than 120 days after the publication date of this issue of the *Utah State Bulletin*. Alternatively, the agency may file a **CHANGE IN PROPOSED RULE** in response to comments received. If the Office of Administrative Rules does not receive a **NOTICE OF EFFECTIVE DATE** or a **CHANGE IN PROPOSED RULE**, the **PROPOSED RULE** lapses.

The public, interest groups, and governmental agencies are invited to review and comment on **PROPOSED RULES**. *Comment may be directed to the contact person identified on the* **RULE ANALYSIS** *for each rule.*

PROPOSED RULES are governed by Section 63G-3-301, Rule R15-2, and Sections R15-4-3, R15-4-4, R15-4-5a, R15-4-9, and R15-4-10.

The Proposed Rules Begin on the Following Page

(d) The director may solicit public comments on an application for approval as an accredited agency.

(5) A proctor for backflow prevention assembly tester certification shall maintain a current proctor certificate issued by the affiliated accredited agency.

(6) To avoid potential conflicts of interest, or the appearance of a conflict of interest, a person providing training to an applicant under this rule may not also serve as a proctor for backflow prevention assembly tester certification for the same applicant.

R309-305-9. Certification Suspension and Revocation.

(1) The director may revoke, suspend, or decline to renew a cross-connection control program administrator certificate, a backflow prevention assembly tester, approved training providers, or accredited agencies for good cause as may be warranted to protect the public health if the person fails to implement timely corrective actions when requested. Examples of valid reasons for certification revocation, suspension, or renewal denial include:

(a) acting in disregard for public health or safety;

(b) engaging in activities beyond the scope of certification;

(c) misinterpreting or falsifying figures or reports concerning backflow prevention assembly or test results;

(d) failing to provide timely and adequate notice as may be required;

(e) installing or repairing a backflow prevention assembly that is not certified; or

(f) implementing a change in the design, material, or operational characteristics of a certified backflow prevention assembly thereby invalidating the backflow prevention assembly certification.

(2) The director may authorize division staff to investigate unprofessional or unacceptable conduct under Title R309.

(3) Before taking action, the director may consult with the cross-connection control advisory committee.

(4) The director shall take appropriate actions in response to the findings of any investigation.

R309-305-10. Cross-Connection Control Advisory Committee

(1) The director may establish a cross-connection control advisory committee consisting of persons from various backgrounds with professional, academic, and vocational experience in the fields of backflow prevention, cross-connection control, backflow prevention assembly testing, training, and certification to assist in the management of the division's backflow prevention and cross-connection control program.

(2) The advisory committee may:

(a) advise the director concerning the training, examination, and certification of persons engaged in cross-connection control and backflow prevention for public water systems;

(b) review, audit, and provide recommendations relating to certification training courses;

(c) review and provide comments on any applications submitted to the director under this rule; and

(d) provide the director with recommendations regarding industry standards relating to the division's backflow prevention and cross-connection control program.

(3) As requested by the director, the advisory committee may conduct public meetings and solicit and evaluate public comments regarding the division's backflow prevention and cross-connection control program.

R309-305-11. Program Fees.

(1) The division's backflow prevention and cross-connection control program shall be funded by fees. All fees collected under this rule shall be used in connection with the division's program.

(2) Applicants for certification as cross-connection control program administrators and backflow prevention assembly testers, or certification renewal and recertification shall pay application fees as a condition for division review and approval of the applications.

(3) The division's program fees shall be as set forth in the department's approved fee schedule.

KEY: drinking water, cross- connection control, backflow prevention assembly tester
Date of Last Change: 2025[~~January 1, 2019~~]
Notice of Continuation: February 10, 2025
Authorizing, and Implemented or Interpreted Law: 19-4-104(4)(a); 63G-3

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R311-200**	**Filing ID: 57423**

Agency Information

1. Title catchline:	Environmental Quality, Environmental Response and Remediation
Building:	Multi Agency State Office Building
Street address:	195 N 1950 W
City, state:	Salt Lake City, UT 84116
Mailing address:	PO Box 144840

City, state and zip:	Salt Lake City, UT 84114-4840	
Contact persons:		
Name:	**Phone:**	**Email:**
David Wilson	385-251-0893	djwilson@utah.gov
Morgan Atkinson	801-979-2512	mpatkinson@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:	
R311-200. Petroleum Storage Tanks: Definitions	
3. Are any changes in this filing because of state legislative action?	Changes are because of legislative action.
If yes, any bill number and session:	HB 18 (2025 General Session)
4. Purpose of the new rule or reason for the change:	
HB 18, which passed in the 2025 General Session, changed the terms "underground" to "petroleum" where appropriate thus requiring changes in some definitions. Clarification of a definition was made and an incorrect reference was deleted.	
5. Summary of the new rule or change:	
Subsection R311-200-1(2)(mm): Definition of "petroleum storage tank" is added to reflect the statutory definition and inform other uses of the term in the PST Rules. Changes made in HB 18 (2025) required that the definitions be updated in this rule. "Eligible exempt UST", "UST inspector", "UST installation", "UST repair and service", "UST installation permit fee", "UST installer", "UST removal", "UST remover" and "UST tester" were changed to "Eligible exempt PST", "PST inspector", "PST installation", "PST repair and service", "PST installation permit fee", "PST installer", "PST removal", "PST remover" and "PST tester", respectively. Subsection R311-200-1(2)(a)(iii)(J): Further detailed that the exemption of APSTs that contain a de minimis concentration of regulated substances applies only to aboveground storage tanks last used prior to 05/05/2021. Subsection R311-200-1(2)(fff)(ii): Changed the definition "Secondary Containment" to remove a reference to a rule that was deleted in a prior rule change. Nonsubstantive internal rule references changed to reflect changes made in these amendments.	

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:
A. State budget:
The Division of Environmental Response and Remediation (Division) does not anticipate any fiscal impact to the state government revenues or expenditures from these definitions. Any fiscal impact pertaining to defined terms will be addressed in the relevant rule.
B. Local governments:
The Division does not anticipate any fiscal impact to local governments' revenues or expenditures from these definitions. Any fiscal impact pertaining to defined terms will be addressed in the relevant rule.
C. Small businesses ("small business" means a business employing 1-49 persons)**:**
The Division does not anticipate any fiscal impact to small businesses' revenues or expenditures from these definitions.

Any fiscal impact pertaining to defined terms will be addressed in the relevant rule.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

The Division does not anticipate any fiscal impact to non-small businesses' revenues or expenditures from these definitions.

Any fiscal impact pertaining to defined terms will be addressed in the relevant rule.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

The Division does not anticipate any fiscal impact on other person's revenues or expenditures from these definitions.

Any fiscal impact pertaining to defined terms will be addressed in the relevant rule.

F. Compliance costs for affected persons:

Any cost or benefits to affected persons relating to the defined terms in this rule will be addressed in the relevant rule.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$0**	**$0**	**$0**	**$0**	**$0**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-6-105	Section 19-6-403	

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until:	10/31/2025

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.)**:**

Date:	**Time:**	**Place** (physical address or URL)**:**
10/15/2025	02:00 PM	Multi Agency State Office Building 195 N 1950 W Salt Lake City, UT Room 1015

10. This rule change MAY become effective on:	11/14/2025
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

Agency head or designee and title:	Brent Everett, Director	**Date:**	09/11/2025

R311. Environmental Quality, Environmental Response and Remediation.
R311-200. Petroleum Storage Tanks: Definitions.
R311-200-1. Definitions.

(1) Terms used in this rule are defined in Section 19-6-402.

(2) In addition, for purposes of this rule:

(a) Aboveground petroleum storage tank" or "APST" means a storage tank that is, by volume, less than 10 % buried in the ground, including the pipes connected to the storage tank and:

(i) has attached underground piping; or

(ii) rests directly on the ground;

(A) contains regulated substances;

(B) has the capacity to hold 501 gallons or more; and

(iii) is not:

(A) used in agricultural operations;

(B) used for heating oil for consumptive use on the premises where stored;

(C) related to a petroleum facility under SIC Code 2911 or 5171 of the 1987 Standard Industrial Classification Manual of the federal Executive Office of the President, Office of Management and Budget;

(D) directly related to oil or gas production, gathering and transmission operations;

(E) used in the fueling of aircraft or ground service equipment at a commercial airport that serves passengers or cargo, with commercial airport defined in Section 72-10-102;

(F) oil filled electrical equipment, including[~~, but not limited to,~~] transformers, circuit breakers, or capacitors;

(G) a stationary aboveground storage tank that is installed, rendered immobile, and intended for use on a property for no more than 180 consecutive days;

(H) an used oil collection tank regulated under Section 19-6-710;

(I) an airport hydrant fuel distribution system at a military facility;

(J) any [~~AST~~]aboveground storage tank, last used before May 5, 2021 that contains a de minimis concentration of regulated substances;

(K) an [~~AST~~]aboveground storage tank used to store liquefied petroleum gases that are not liquid at standard temperature and pressure; or

(L) an aboveground hot-oil tank or container that is used to store petroleum products that will be manufactured into asphalt paving material.

(b) "Actively participated" for the certification programs means that the individual applying for certification must have had operative experience for the entire project from start to finish, whether it be an installation or a removal.

(c) "Agricultural operation" means any operation on a tract of land devoted to the production of crops, animals, or fowl; fruit or vegetable products; or the production of dairy, nuts, tobacco, nursery, or floral products.

(d) "As-built drawing" for notification means a drawing to scale of newly constructed PSTs. The PSTs shall be referenced to buildings, streets, and limits of the excavation. The drawing shall show the locations of tanks, product lines, dispensers, vent lines, cathodic protection systems, and monitoring wells. Drawing size must be limited to 8-1/2" x 11" if possible, but shall in no case be larger than 11" x 17".

(e) "Backfill" means any foreign material, usually pea gravel or sand, which usually differs from the native soil and is used to support or cover the PST system.

(f) "Certificate" means a document that evidences certification.

(g) "Certification" means approval by the director or the board to engage in the activity applied for by the individual.

(h) "Certified environmental laboratory" means a laboratory certified by the Utah Department of Health and Human Services as outlined in Rule R444-14 to perform analyses according to the laboratory methods identified for PST sampling in Subsection R311-205-2(5).

(i) "Certified sampler" is the person who performs environmental media sampling for compliance with Utah PST rules.

(j) "Change-in-service" means the continued use of a PST to store a non-regulated substance.

(k) "Claimant" means any person eligible to submit requests for reimbursement of costs against the Petroleum Storage Tank Fund as determined by the director.

(l) "Community water system" means a public water system that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

(m) "Confirmation sample" means an environmental sample taken, excluding closure samples as outlined in Section R311-205-2, during soil over-excavation or any other remedial or investigation activities conducted to determine the extent and degree of contamination.

(n) "Consultant" is a person who is a certified PST consultant according to Subsection 19-6-402(7) and Section R311-201-2.

(o) "Cost Guidelines" refers to the Cost Guidelines for Utah [~~Underground~~]Petroleum Storage Tank Sites document, dated June 3, 2021. This document contains personnel classifications, requirements, and rates, general tasks and responsibilities for personnel, maximum allowable equipment and laboratory rates, and specific items or activities that will and will not be reimbursed by the Petroleum Storage Tank Fund.

(p) "Customary, reasonable, and legitimate expenses" means costs incurred during the investigation, abatement, and corrective actions that address a release which are normally charged according to accepted industry standards, and which must be justified in an audit as an appropriate cost. The costs must be directly related to the tasks performed.

(q) "Customary, reasonable, and legitimate work" means work for investigation, abatement, and corrective action that shall reduce contamination at a site to levels that are protective of human health and the environment. Acceptable levels may be established by risk-based analysis and considering current or probable land use as determined by the director following the criteria in Rule R311-211.

(r) "Department" means the Utah Department of Environmental Quality.

(s) "EAP" means the Environmental Assurance Program established in Section 19-6-410.5.

(t) "Eligible exempt [~~U~~]PST" for eligibility for the Petroleum Storage Tank Fund means a tank specified in [~~Subsection~~]Section 19-6-415[~~(1)~~].

(u) "Environmental media sample" is a groundwater, surface water, air, or soil sample collected, using appropriate methods, for evaluating environmental contamination.

(v) "EPA" means the United States Environmental Protection Agency.

(w) "Expeditiously disposed of" means disposed of as soon as practical so as not to become a potential threat to human health or safety or the environment, whether foreseen or unforeseen as determined by the director.

(x) "Fiscal year" means a period beginning July 1 and ending June 30 of the following year.

(y) "Full installation" for the purposes of Subsection 19-6-411(2) means the installation of a PST.

(z) "Groundwater sample" is a sample of water from below the surface of the ground collected according to protocol established in Rule R311-205.

(aa) "Historic contamination" as referenced in Subsections 19-6-428([~~3~~]2)(c) and 19-6-428([~~3~~]2)(d) is petroleum contamination:

(i) reported after the start of continuous participation in the EAP that has no apparent cause or source and for which the director reasonably determines to have occurred during a period of non-participation; or

(ii) a release which does not meet the definition of a new release.

(bb) "Injury or damage from a release" means, for the purposes of Subsection 19-6-409(2)(e), any petroleum contamination that has migrated from the release onto or under a third party's property at concentrations exceeding Initial Screening Levels specified in Subsection R311-211-6(1).

(cc) "In service" means an PST that is actively storing or dispensing regulated substances.

(dd) "In use" means that an operational, inactive, or abandoned PST contains a regulated substance, sludge, dissolved fractions, or vapor which may pose a threat to the safety of human health or the environment, as determined by the director.

(ee) "Lapse" in reference to the certificate of compliance and coverage under the EAP, means to terminate automatically.

(ff) "Native soil" means any soil that is not backfill material, is naturally occurring, and is most representative of the localized subsurface lithology and geology.

(gg) "New release" as referenced in Subsections 19-6-428([~~3~~]2)(c) and 19-6-428([~~3~~]2)(d) are releases that occur on or after the start date for continuous participation in the EAP, which the director reasonably determines to have occurred due to an unusual operating condition, an apparent PST system equipment failure, a failed PST test, an overfill, or a surface spill during the time of program participation.

(hh) "No further action determination" means that the director has evaluated information provided by responsible parties or others about the site and determined that any detectable petroleum contamination from a particular release does not present a threat to public health or the environment based upon board established criteria in Title R311. If future evidence indicates contamination from that release may cause a threat, further corrective action may be required.

(ii) "Occurrence" in reference to Section R311-208-4 means a separate petroleum fuel delivery to a single tank.

(jj) "Owners and operators" means either an owner or operator, or both owner and operator.

(kk) "Over-excavation" means any soil removed in an effort to investigate or remediate in addition to the minimum amount required to remove the PST or take environmental media samples during PST closure activities as outlined in Section R311-205-2.

(ll) "Permanently closed" means PSTs that are removed from service following guidelines in 40 CFR Part 280 Subpart G incorporated by Rule R311-202.

(mm) "Petroleum storage tank" means a tank that:

(i) is an underground storage tank;

(ii) is an aboveground petroleum storage tank; or

(iii) is a tank containing regulated substances that is voluntarily submitted for participation in the fund under Section 19-6-415.

([~~mm~~]nn) "Petroleum storage tank fee" means the fee which funds the Petroleum Storage Tank Fund as established in Section 19-6-409.

([~~nn~~]oo) "Petroleum Storage Tank Fund" means the Fund created by Section 19-6-409.

([~~oo~~]pp) "Potable drinking water well" means any hole, dug, driven, drilled, or bored, that extends into the earth until it meets groundwater which supplies water for a non-community public water system, or otherwise supplies water for household use, consisting of drinking, bathing, and cooking, or other similar uses. Such a well may provide water to entities such as a single-family residence, group of residences, businesses, schools, parks, campgrounds, and other permanent or seasonal communities.

([~~pp~~]qq) "PST" means petroleum storage tank as defined in Subsection 19-6-402(21).

(rr) "PST inspector" is an individual who performs PST inspections for compliance with state and federal rules and regulations as authorized in Subsection 19-6-404(2)(c).

([~~qq~~]ss) "PST inspection" is the inspection required by state and applicable federal underground storage tank rules and regulations during the installation, testing, repairing, operation or maintenance, and removal of regulated PSTs.

([~~rr~~]tt) "PST installation" means the installation of a PST, including [~~any component that is critical to~~]construction, placing into operation, building, or assembling a PST in the field. It includes any operation that is critical to the integrity of the system and to the protection of the environment, which includes:

(i) [~~the integrity of the system~~]pre-installation tank testing, tank site preparation including anchoring, tank placement, and backfilling;

(ii) [~~protection of the environment; and~~]vent and product piping assembly;

(iii) [~~qualifying for a certificate of compliance.~~]cathodic protection installation, service, and repair;

(iv) internal lining;

(v) secondary containment construction; and

(vi) PST repair and service.

(uu) "PST installation permit fee" means the fee established by Subsection 19-6-411(2)(a)(ii).

(vv) "PST installer" means an individual who engages in PST installation.

(ww) "PST removal" means the removal or permanent closure of a PST system by taking out of service all or part of a PST system.

(xx) "PST remover" means an individual who engages in PST tank removal.

(yy) "PST tester" means an individual who engages in PST testing.

([~~ss~~]zz) "PST testing" means:

(i) a testing method which can detect leaks in a PST system;

(ii) testing for compliance with corrosion protection requirements;

(iii) testing or inspection for proper operation of overfill prevention devices and electronic or mechanical leak detection components;

(iv) any testing requirements for exempt USTs or aboveground storage tanks that voluntarily participate in the EAP; or

(v) testing methods that meet applicable performance standards:

(A) 40 CFR 280.40(a)(4), 280.43(c), and 280.44(b) for tank and product piping tightness testing;

(B) 40 CFR 280.35(a)(1)(ii) for testing of spill prevention equipment and containment sumps used for interstitial monitoring of piping;

(C) 40 CFR 280.31(b) for cathodic protection testing;

(D) 40 CFR 280.35(a)(2) for overfill device inspection;

(E) 40 CFR 280.40(a)(3) for testing of mechanical and electronic release detection components; and

(F) interstitial testing for tank and piping secondary containment.

([~~tt~~]aaa) "Public water system" means a system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. It includes any collection, treatment, storage, and distribution facilities under control of the operator of the system and used primarily in connection with the system; and, any collection or pretreatment storage facilities not under such control which are used primarily in connection with the system.

([~~uu~~]bbb) "Registration fee" means PST registration fee.

([~~vv~~]ccc) "Related parties" for the purposes of Section R311-207-4, means organizations or persons related to the consultant by any of the following: marriage; blood; one or more partners in common with the consultant; one or more directors or officers in common with the consultant; more than 10% common ownership direct or indirect with the consultant.

([~~ww~~]ddd) "Reportable release" means a spill, overfill, leak, discharge, leachate, or disposal of a regulated substance that results in a release to the environment.

([~~xx~~]eee) "Rests directly on the ground" means that at least some portion of a PST situated aboveground is in direct contact with soil.

([~~yy~~]fff) "Secondary containment"

(i) for the purposes of Rule R311-202 and Section R311-203-6, means a release prevention and detection system for a tank or piping that has an inner and outer barrier with an interstitial space between them for monitoring. The monitoring of the interstitial space must meet the requirements of 40 CFR 280.43(g).

(ii) for [~~the purposes of Subsection R311-206-4(6)~~]APSTs, means a dike, vault, enclosure, berm, double-walled system, or any other barrier that meets the secondary containment standards listed in the International Fire Code (IFC) 2306.5 and 5704.2.10.

([~~zz~~]ggg) "Site assessment" or "site check" is an evaluation of the level of contamination at a site which contains or has contained a PST.

([~~aaa~~]hhh) "Site assessment report" is a summary of relevant information describing the surface and subsurface conditions at a facility following any abatement, investigation or assessment, monitoring, remediation or corrective action activities as outlined in Rule R311-202, incorporating 40 CFR 280 Subparts E and F.

([~~bbb~~]iii) "Site investigation" is work performed by the owner or operator, or their designee, when gathering information for reports required for Utah PST rules.

([~~eee~~]jjj) "Site plat" for notification or reporting, refers to a drawing to scale of PSTs in reference to the facility. The scale should be dimensioned appropriately. Drawing size shall be limited to 8-1/2" x 11" if possible, but must in no case be larger than 11" x 17". The site plat should include the following: property boundaries; streets and orientation; buildings or adjacent structures surrounding the facility; present or former PSTs; extent of any excavations; location and volume of any stockpiled soil; locations, depths, and analytical results of all environmental media samples collected; locations and total depths of borings or permanent wells, or other measurement or data points; type of ground-cover; utility conduits; local land use; surface water drainage; and other relevant features.

([~~ddd~~]kkk) "Site under control" means that the site of a release has been actively addressed by the owner or operator who has taken the following measures:

(i) fire and explosion hazards have been abated;

(ii) free flow of the product out of the tank has been stopped;

(iii) free product is being removed from the soil, groundwater, or surface water according to a work plan or corrective action plan approved by the director, except as allowed by Subsections 19-6-420(3)(b) and 19-6-420(6);

(iv) alternative water supplies have been provided to affected parties whose original water supply has been contaminated by the release; and

(v) a soil or groundwater management plan or both have been submitted for approval by the director.

([~~eee~~]lll) "Soil" as referenced in Subsection 19-6-402([~~28~~]30) means natural earthen material under which there is no secondary containment.

([~~fff~~]mmm) "Soil sample" is a sample collected following the protocol established in Rule R311-205.

([~~ggg~~]nnn) "Surface water sample" is a sample of water, other than a groundwater sample, collected according to protocol established in Rule R311-205.

(iii) "Suspected release" means a release that may have occurred from a regulated PST system, for example: petroleum contamination discovered at the PST site or in the surrounding area; unusual operating conditions of the PST system; release detection methods indicating a release may have occurred;[-] inventory control records indicating unexplained product loss; or, a spill or overfill that occurs outside secondary containment and exceeds 25 gallons.

([~~hhh~~]ooo) "Tank" is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials, such as concrete, steel, or plastic, that provide structural support.

([~~iii~~]ppp) "Third-party Class B operator" is any individual who is not the facility owner or operator, or an employee of the owner or operator and who, by contract, provides the services outlined in Subsection R311-201-12(7).

([~~jjj~~]qqq) "Under-dispenser containment," for the purposes of Section R311-203-6, means containment underneath a dispenser that will prevent leaks from the dispenser or transitional components that connect the piping to the dispenser, check valves, shear valves, unburied risers or flex connectors, or other components that are beneath the dispenser, from reaching soil or groundwater.

[~~(kkk) "UST inspector" is an individual who performs PST inspections for compliance with state and federal rules and regulations as authorized in Subsection 19-6-404(2)(e).~~

~~(lll) "UST installation" means the installation of a PST, including construction, placing into operation, building, or assembling a PST in the field. It includes any operation that is critical to the integrity of the system and to the protection of the environment, which includes:~~

~~(i) pre-installation tank testing, tank site preparation including anchoring, tank placement, and backfilling;~~

~~(ii) vent and product piping assembly;~~

~~(iii) cathodic protection installation, service, and repair;~~

~~(iv) internal lining;~~

~~(v) secondary containment construction; and~~

~~(vi) UST repair and service.~~

~~(mmm) "UST installation permit fee" means the fee established by Subsection 19-6-411(2)(a)(ii).~~

~~(nnn) "UST installer" means an individual who engages in PST installation.~~

~~(ooo) "UST removal" means the removal or permanent closure of a PST system by taking out of service all or part of a PST system.~~

~~(ppp) "UST remover" means an individual who engages in PST tank removal.~~

~~(qqq) "UST tester" means an individual who engages in PST testing.~~]

KEY: petroleum, underground storage tanks
Date of Last Change: [~~April 14, 2023~~]2025
Notice of Continuation: March 8, 2022
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-403

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R311-201**	**Filing ID: 57441**

Agency Information

1. Title catchline:	Environmental Quality, Environmental Response and Remediation
Building:	Multi Agency State Office Building

Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT 84116	
Mailing address:	PO Box 144840	
City, state and zip:	Salt Lake City, UT 84114-4840	
Contact persons:		
Name:	**Phone:**	**Email:**
David Wilson	385-251-0893	djwilson@utah.gov
Morgan Atkinson	801-979-2512	mpatkinson@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:	
R311-201. Petroleum Storage Tanks: Certification Programs and UST Operator Training	
3. Are any changes in this filing because of state legislative action?	Changes are because of legislative action.
If yes, any bill number and session:	HB 18 (2025 General Session)
4. Purpose of the new rule or reason for the change:	
HB 18, Petroleum Storage Tank Amendments, which was passed in the 2025 General Session changed the terms "underground" to "petroleum" for certifying individuals. These modifications required changes of these terms in rule and provided clarification. Provided clarification of the requirements for re-training of a Class B operators that are found to be out of compliance.	
5. Summary of the new rule or change:	
In multiple parts of this rule, the following terms were changed: UST inspector to PST Inspector, UST tester to PST tester, UST installer to PST installer and UST remover to PST remover. Subsection R311-201-12(10)(d)(ii): The document, as referenced in this rule, "UST and LUST Performance Definitions as of October 2018", was previously incorporated by reference. This document is vague when pertaining to retraining requirements. This document will be removed as a reference in this rule and will instead refer directly to specific conditions within EPA regulations that trigger the need for retraining.	

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:
A. State budget:
This rule change is not expected to have any fiscal impact on state government revenues or expenditures because these certified individuals being hired to do PST work are currently required to be certified under this rule to work on both APSTs and USTs. Also, any other additional costs were accounted for in the fiscal note attached to HB 18 (2025).
B. Local governments:
This rule change is not expected to have any fiscal impact on local governments' revenues or expenditures because these certified individuals being hired to do PST work are currently required to be certified under this rule to work on both APSTs and USTs. Also, any other additional costs were accounted for in the fiscal note attached to HB 18 (2025).
C. Small businesses ("small business" means a business employing 1-49 persons)**:**
This rule change is not expected to have any fiscal impact on small businesses' revenues or expenditures because these certified individuals being hired to do PST work are currently required to be certified under this rule to work on both APSTs and USTs. Also, any other additional costs were accounted for in the fiscal note attached to HB 18 (2025).

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

This rule change is not expected to have any fiscal impact on non-small businesses' revenues or expenditures because these certified individuals being hired to do PST work are currently required to be certified under this rule to work on both APSTs and USTs.

Additional costs were accounted for in the fiscal note attached to HB 18 (2025).

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

These rule changes are not expected to have any fiscal impact on other persons because the rule changes will not apply to these entities.

F. Compliance costs for affected persons:

This rule change is not expected to have any fiscal impact on affected persons who wish to hire individual to do work on PSTs since these individuals are currently required to be certified under this rule to work on both APSTs and USTs.

Any additional compliance costs for affected persons was accounted for in the fiscal note attached to HB 18 (2025).

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$0**	**$0**	**$0**	**$0**	**$0**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-1-301	Section 19-6-105	Section 19-6-402
Section 19-6-403	Section 63G-4-102	Sections 63G-4-201 through 63G-4-205
Section 63G-4-503		

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.		
A. Comments will be accepted until:		10/31/2025
B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.)**:**		
Date:	**Time:**	**Place** (physical address or URL)**:**
10/15/2025	02:00 PM	Multi Agency State Office Building 195 N 1950 W Salt Lake City, UT Room 1015

10. This rule change MAY become effective on:	11/14/2025
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

Agency head or designee and title:	Brent Everett, Director	**Date:**	09/11/2025

R311. Environmental Quality, Environmental Response and Remediation.
R311-201. Petroleum Storage Tanks: Certification Programs and UST Operator Training.
R311-201-1. Definitions.

Definitions are found in Rule R311-200.

R311-201-2. Requirement for Certification.

(1) a certified PST consultant is required as specified in Subsection 19-6-402(7)(a).

(a) no person shall provide or contract to provide the following services without having certification to conduct these activities:

(i) provide information, opinions, or advice relating to PST release management;

(ii) abatement;

(iii) investigation;

(iv) corrective action; or

(v) evaluation for a fee, or in connection with the services for which a fee is charged.

(A) except as outlined in Subsection R311-204-5(2); and

(B) except for releases from a hazardous substance PST system, as defined in 40 CFR 280.10.

(b) a certified PST consultant must:

(i) make pertinent project management decisions;

(ii) ensure all aspects of work related to PSTs containing petroleum are performed in an appropriate manner; and

(iii) sign required documentation to be submitted to the director for work performed.

(c) any PST release abatement, investigation, or corrective action work performed by a person who is not certified or who is not working under the direct supervision of a certified PST consultant, and is performed for compliance with Utah PST rules, may be rejected by the director.

(2) [~~U~~]PST inspector. No person shall conduct a PST inspection as authorized in Subsection 19-6-404(2)(c) without having certification to conduct such activities.

(a) the director may issue a limited certification restricting the type of PST inspections the applicant can perform.

(3) [~~U~~]PST tester. No owner or operator shall allow PST testing to be conducted on a PST under their ownership or operation unless the person conducting the PST testing is certified according to Rule R311-201.

(a) except as outlined in Section R311-201-3, no person shall conduct PST testing without having certification to conduct such activities.

(b) an individual certified under Rule R311-201 as a [~~U~~]PST installer may:

(i) perform a test of spill prevention equipment and containment sumps used for interstitial monitoring of piping, to meet the requirements of 40 CFR 280.35(a)(1)(ii), if no equipment that requires training by the manufacturer is used;

(ii) perform an overfill device inspection to meet the requirements of 40 CFR 280.35(a)(2);

(iii) perform a test for proper operation of release detection components to meet the requirements of 40 CFR 280.40(a)(3)(i), 280.40(a)(3)(ii), 280.40(a)(3)(iv), and 280.40(a)(3)(v); and

(iv) perform a test of a piping containment sump or under-dispenser containment to meet the requirements of 40 CFR 280.35(a), if no equipment that requires training by the manufacturer is used.

(c) a PST owner or operator may:

(i) perform a hydrostatic test of spill prevention equipment and containment sumps used for interstitial monitoring of piping, to meet the requirements of 40 CFR 280.35(a)(1)(ii), if no equipment that requires training by the manufacturer is used; and

(ii) perform a test of a piping containment sump or under-dispenser containment to meet the requirements of 40 CFR 280.35(a), if no equipment that requires training by the manufacturer is used.

(d) certification by the director under this rule applies only to the specific PST testing equipment and procedures for which the [~~U~~]PST tester has been successfully trained by the manufacturer of the equipment, or by equivalent training as determined by the director, for the following types of testing:

(i) tank, line, and leak detector testing;

(ii) interstitial tests of tanks and piping; and

(iii) spill prevention device and containment sump testing, if equipment that requires training by the manufacturer is used.

(e) the director may issue a limited certification restricting the type of PST testing the applicant can perform.

(4) Certified sampler. No person shall conduct environmental media sampling for determining levels of contamination which may have occurred from regulated PSTs without having certification to conduct these activities.

(a) no owner or operator shall allow any environmental media sampling for determining levels of contamination which may have occurred from regulated PSTs to be conducted on a tank under their ownership or operation unless the person conducting the environmental media sampling is certified according to Rule R311-201.

(5) [~~U~~]PST installer. No person shall install a PST without having certification or the on-site supervision of an individual having certification to conduct these activities.

(a) no owner or operator shall allow the installation of a PST, or any component thereof, under their ownership or operation unless the person installing the PST is certified according to Rule R311-201.

(b) the director may issue a limited certification restricting the type of PST installation the applicant can perform.

(6) [~~U~~]PST remover. No person shall remove a PST without having certification or the on-site supervision of an individual having certification to conduct these activities.

(a) no owner or operator shall allow the removal of a PST, or any component thereof, under their ownership or operation unless the person conducting the PST removal is certified according to Rule R311-201.

R311-201-3. Eligibility for Certification.

(1) Certified PST consultant.

(a) training. For initial and renewal certification, an applicant must meet:

(i) Occupational Safety and Health Agency safety training requirements in accordance with 29 CFR 1910.120 and any other applicable safety training, as required by federal and state law; and

(ii) within a six-month period before application, complete an approved training course or equivalent in a program approved by the director to provide training to include the following areas:

(A) state and federal statutes;

(B) rules and regulations;

(C) environmental media sampling; and

(D) department policies.

(b) experience. Each applicant must provide with the application a signed statement or other evidence demonstrating:

(i) three years, within the past seven years, of appropriately related experience in PST release abatement, investigation, and corrective action; or

(ii) an equivalent combination of appropriate education and experience, as determined by the director.

(c) education. Each applicant must provide with the application college transcripts or other evidence demonstrating the following:

(i) a bachelor's or advanced degree from an accredited college or university with major study in environmental health, engineering, biological, chemical, environmental, or physical science, or a specialized or related scientific field, or equivalent education or experience as determined by the director;

(ii) a professional engineering certificate licensed under Title 58, Chapter 22, of the Professional Engineers and Land Surveyors Licensing Act, or equivalent certification as determined by the director; or

(iii) a professional geologist certificate licensed under Title 58, Chapter 76 of the Professional Geologist Licensing Act, or equivalent certification as determined by the director.

(d) initial certification examination. Each applicant who is not certified pursuant to Section R311-201-4 must successfully pass an initial certification examination or equivalent, administered under the direction of the director.

(i) the director shall determine the content of the initial examination based on the training requirements as outlined in Subsection R311-201-3(1)(a).

(e) renewal certification examination. Certified PST consultants seeking to renew their certification pursuant to Section R311-201-5 must successfully pass a renewal certification examination, or equivalent administered under the direction of the director.

(i) the director shall determine the content of the renewal examination based on the training requirements as outlined in Subsection R311-201-3(1)(a).

(ii) the director may offer a renewal certification examination that is less comprehensive than the initial certification examination.

(f) examination for revoked or expired certification. Any applicant who is not a certified PST consultant on the date the renewal certification examination is given because the consultant's prior certification was revoked or expired before completing a renewal application, must successfully pass the initial certification examination administered under Subsection R311-201-3(1)(d).

(2) [~~U~~]PST inspector.

(a) training. For initial certification, an applicant must have successfully completed a PST inspector training course or equivalent within the six-month period before application.

(i) the training course must be approved by the director and shall include instruction in the following areas:
(A) corrosion;
(B) geology;
(C) hydrology;
(D) tank handling;
(E) tank testing;
(F) product piping testing;
(G) disposal;
(H) safety;
(I) sampling methodology;
(J) state site inspection protocol;
(K) state and federal statutes; and
(L) Utah PST rules and regulations.
(ii) renewal certification training will be established by the director.
(iii) the applicant must provide documentation of training with the application.

(b) certification examination. An applicant must successfully pass a certification examination administered under the direction of the director.

(i) the director shall determine the content of the initial and renewal examinations, based on the training requirements as outlined in Subsection R311-201-3(2)(a), and the standards and criteria against which the applicant will be evaluated.
(ii) the director may offer a renewal certification examination that is less comprehensive than the initial certification examination.

(3) [~~U~~]PST tester.

(a) financial assurance. An applicant or applicant's employer must have insurance, surety bonds, liquid company assets or other appropriate kinds of financial assurance which covers PST testing and which, in combination, represent an unencumbered value of the largest PST testing contract performed by the applicant or the applicant's employer, as appropriate, during the previous two years, or $50,000, whichever is greater.

(i) an applicant who uses their employer's financial assurance must also provide evidence of their employer's approval of the certification application.

(b) training. For initial certification, an applicant must complete a PST tester's training course within the six-month period before application, in a program approved by the director, to provide training to include applicable and related areas of state and federal statutes, rules, and regulations.

(i) renewal certification training will be established by the director.
(A) the applicant must provide documentation of training with the application.

(ii) for initial certification to perform the types of testing specified in Subsection R311-201-2(3), an applicant must have successfully passed a training course conducted by the manufacturer of the PST testing equipment that they will be using, or a training course determined by the director to be equivalent to the manufacturer training, in the correct use of the equipment and testing procedures required to operate the PST test system.

(iii) an applicant for renewal of certification must have successfully passed an appropriate refresher training course conducted by the manufacturer of the PST testing equipment that they will be using, or training as determined by the director to be equivalent to the manufacturer training, in the correct use of the equipment and testing procedures required to operate the PST test system.

(A) for renewal certification, refresher training, or equivalent must be completed within one year before the expiration date of the certificate.

(iv) cathodic protection testing. For initial and renewal of certification, the applicant must provide documentation of training as a "Cathodic protection tester" as defined in 40 CFR 280.12 with the application.

(c) performance standards of equipment. An applicant must submit documentation that demonstrates the PST testing equipment used by the applicant meets the performance standards specified in Subsection R311-200-1(2)([~~ss~~]zz)(v).

(i) this documentation shall be obtained through an independent lab, professional engineering firm, or other independent organization or individual approved by the director and submitted at the time of application for certification.

(d) certification examination. An applicant must successfully pass a certification examination administered under the direction of the director.

(i) the director shall determine the content of the initial and renewal examinations, based on the training requirements as outlined in Subsection R311-201-3(3)(b), and the standards and criteria against which the applicant will be evaluated.
(ii) the director may offer a renewal certification examination that is less comprehensive than the initial certification examination.

(4) Certified sampler.

(a) training. For initial certification an applicant must successfully complete a petroleum storage tank environmental media sampler training course or equivalent within the six-month period before application.

(i) the training course must be approved by the director and shall include instruction in the following areas:
(A) chain of custody;
(B) decontamination;
(C) EPA testing methods;
(D) environmental media sampling protocol;
(E) preservation of samples during transportation;
(F) coordination with Utah certified laboratories; and

(G) state and federal statutes, rules, and regulations.

(ii) renewal certification training will be determined by the director.

(A) the applicant shall provide documentation of training with the application.

(b) certification examination. An applicant must successfully pass a certification examination administered under the direction of the director.

(i) the director shall determine the content of the initial and subsequent examinations, based on the training requirements as outlined in Subsection R311-201-3(4)(a), and the standards and criteria against which the applicant will be evaluated.

(ii) the director may offer a renewal certification examination that is less comprehensive than the initial certification examination.

(5) [~~U~~]PST installer.

(a) financial assurance. An applicant or the applicant's employer must have insurance, surety bonds, liquid company assets, or other appropriate kinds of financial assurance which covers PST installation and which, in combination, represents an unencumbered value of not less than the largest PST installation contract performed by the applicant or the applicant's employer, as appropriate, during the previous two years, or $250,000, whichever is greater.

(i) evidence of financial assurance shall be provided with the application.

(ii) an applicant who uses their employer's financial assurance must also provide evidence of their employer's approval of the application.

(b) training. For initial certification, an applicant must have successfully completed a PST installer training course or equivalent within the six-month period before the application.

(i) the training course must be approved by the director, and shall include instruction in the following areas:

(A) tank installation;

(B) pre-installation tank testing;

(C) product piping testing;

(D) excavation;

(E) anchoring;

(F) backfilling;

(G) secondary containment;

(H) leak detection methods;

(I) piping;

(J) electrical; and

(K) state and federal statutes, rules, and regulations.

(ii) the applicant must provide documentation of training with the application.

(c) experience. Each applicant must provide with their application a sworn statement or other evidence that they have actively participated in a minimum of three PST installations.

(d) certification examination. An applicant must successfully pass a certification examination administered under the direction of the director.

(i) the director shall determine the content of the initial and renewal examinations, based on the training requirements as outlined in Subsection R311-201-3(5)(b), and the standards and criteria against which the applicant will be evaluated.

(ii) the director may offer a renewal certification examination that is less comprehensive than the initial certification examination.

(6) [~~U~~]PST remover.

(a) financial assurance. An applicant or the applicant's employer must have insurance, surety bonds, liquid company assets or other appropriate kinds of financial assurance which covers PST removal and which, in combination, represents an unencumbered value of not less than the largest PST removal contract performed by the applicant or the applicant's employer, as appropriate, during the previous two years, or $250,000, whichever is greater.

(i) evidence of financial assurance shall be provided with the application.

(ii) an applicant who uses their employer's financial assurance must also provide evidence of their employer's approval of the application.

(b) training. For initial certification, an applicant must have successfully completed a PST remover approved training course or equivalent within the six-month period before the application.

(i) the training course must be approved by the director and shall include instruction in the following areas:

(A) tank removal;

(B) tank removal safety practices; and

(C) state and federal statutes, rules, and regulations.

(ii) the applicant must provide documentation of training with the application.

(c) experience. Each applicant must provide with their application a sworn statement or other evidence that they have actively participated in a minimum of three PST removals.

(d) certification examination. An applicant must successfully pass a certification examination administered under the direction of the director.

(i) the director shall determine the content of the initial and renewal examinations, based on the training requirements as outlined in Subsection R311-201-3(6)(b), and the standards and criteria against which the applicant will be evaluated.

(ii) the director may offer a renewal certification examination that is less comprehensive than the initial certification examination.

R311-201-4. Application for Certification.

(1) Any individual may apply for certification by paying any applicable fees and by submitting an application to the director to demonstrate that the applicant

(a) meets applicable eligibility requirements specified in Section R311-201-3; and

(b) will maintain the applicable performance standards specified in Section R311-201-6 after receiving a certificate.

(2) Applications submitted under Subsection R311-201-4(1) shall be reviewed by the director for determination of eligibility for certification.

(a) if the director determines that the applicant meets the applicable eligibility requirements described in Section R311-201-3 and meets the standards described in Section R311-201-6, the director shall issue to the applicant a certificate.

(3) Certification for certificate holders shall be effective for a period of two years from the date of issuance, unless revoked before the expiration date pursuant to Section R311-201-9 or inactivated pursuant to Section R311-201-8.

(a) certificates shall be subject to periodic renewal pursuant to Section R311-201-5.

R311-201-5. Renewal.

(1) A certificate holder may apply for certificate renewal not more than six months before the expiration date of the certificate by:

(a) submitting a completed application form to demonstrate that the applicant meets the applicable eligibility requirements described in Section R311-201-3 and meets the applicable performance standards specified in Section R311-201-6;

(b) paying any applicable fees; and

(c) passing a certification renewal examination.

(2) If the director determines that the applicant meets the applicable eligibility requirements of Section R311-201-3 and the applicable performance standards of Section R311-201-6, the director shall reissue the certificate to the applicant.

(3) Renewal certificates shall be issued for a period equal to the initial certification period and shall be:

(a) subject to inactivation under Section R311-201-8; and

(b) subject to revocation under Section R311-201-9.

(4) Any applicant who has a certification which has been revoked or expired for more than two years before submitting a renewal application must successfully satisfy the training and certification examination requirements for initial certification under Section R311-201-3 for the applicable certificate before receiving the renewal certification.

(a) except as provided in Subsection R311-201-3(1)(f) for certified PST consultants.

R311-201-6. Standards of Performance.

(1) Individuals who are certified in accordance with Rule R311-201 must:

(a) display the certificate upon request;

(b) comply with all local, state, and federal laws, rules, and regulations regarding the PST activity for which certification is granted;

(c) report the discovery of any release caused by or encountered in the course of performing the PST activity for which certification is granted to the director, the local health district, and the local public safety office within 24 hours.

(i) certified PST consultants and certified samplers must report the discovery of any release caused by or encountered in the course of performing environmental media sampling for compliance with Utah PST rules, or report the results indicating that a release may have occurred, to the director, the local health district, and the local public safety office within 24 hours.

(d) not participate in fraudulent, unethical, deceitful, or dishonest activity with respect to a certificate application or performance of work for which certification is granted; and

(e) not participate in any other regulated certification program activities without meeting all requirements of that certification program.

(2) The director may audit or commission an audit of records which support eligibility for certification, or performance of work for which certification is granted, at any time.

(a) audits may be determined by random selection or for specific reasons, including suspicion or discovery of inaccuracies on an application for certification or performance of substandard work for which certification is granted, or deficiencies in complying with regulations.

(3) Certified individuals must, in addition to meeting the performance standards in Subsection R311-201-6(1), comply with the following:

(a) certified PST consultant. An individual who provides PST consulting services in the state must:

(i) provide, or shall associate appropriate personnel to provide a high level of experience and expertise in release abatement, investigation, or corrective action;

(ii) perform, or take steps to ensure that work is performed with skill, care, and diligence consistent with a high level of experience and expertise in release abatement, investigation, or corrective action;

(iii) perform work and submit documentation in a timely manner;

(iv) review and certify by signature any documentation submitted to the director in accordance with PST release-related compliance; and

(v) ensure and certify by signature pertinent release abatement, investigation, and corrective action work performed under the direct supervision of a certified PST consultant.

(b) [~~U~~]PST inspector. An individual who performs PST inspecting for the Division of Environmental Response and Remediation shall:

(i) conduct inspections of PSTs and records to determine compliance with this rule only as authorized by the director.

(c) [~~U~~]PST tester. An individual who performs PST testing in the state must:

(i) perform work in a manner that does not cause a release of the contents of the tank;

(ii) assure that operations of PST testing which are critical to the integrity of the system and to the protection of the environment are supervised by a certified person; and

(iii) perform work in a manner that the integrity of the PST system is maintained.

(d) [~~U~~]PST installer. An individual who performs PST installation or repair in Utah must:

(i) be certified to assure the proper installation of all elements of PST systems which are critical to the integrity of the system and to the protection of the environment, including:

(A) pre-installation tank testing;

(B) tank site preparation including anchoring, tank placement, and backfilling;

(C) cathodic protection installation, service, or repair;

(D) vent and product piping assembly;

(E) fill tube attachment;

(F) installation of tank manholes;

(H) secondary containment construction; and

(ii) notify the director as required by Subsection R311-203-3(1) before installing or upgrading an PST.

(e) [~~U~~]PST remover. An individual who performs PST removal in the state must:

(i) assure that operations of tank removal which are critical to safety and to the protection of the environment which includes:

(A) removal of soil adjacent to the tank;

(B) disassembly of pipe;

(C) final removal of product and sludges from the tank, cleaning of the tank, purging or inerting of the tank, removal of the tank from the ground, and removal of the tank from the site must be supervised by a certified person; and

(ii) not proceed to close a regulated PST without an approved closure plan, except as outlined in Subsection R311-204-2(2).

R311-201-7. Denial of Certification and Appeal of Denial.

(1) Any individual whose application or renewal application for certification or certification renewal is denied will be provided with a written documentation by the director specifying the reason or reasons for denial.

(a) an applicant may appeal the determination using the procedures specified in Section 19-1-301.5, et seq., and Rule R305-7.

R311-201-8. Inactivation of Certification.

(1) If an applicant was certified based upon their employer's financial assurance, certification is contingent upon the applicant's continued employment by that employer.

(2) If the employer loses their financial assurance or the applicant leaves the employer, their certification will automatically be deemed inactive and they will no longer be certified for purposes of this rule.

(3) Inactive certificates may be reactivated by submitting a supplemental application with new financial assurances and payment of any applicable fees.

(4) Reactivated certificates shall be effective for the remainder of their original term unless subsequently revoked or inactivated before the end of that term.

R311-201-9. Revocation of Certification.

(1) Upon receipt of evidence that a certificate holder does not meet one or more of the eligibility requirements specified in Section R311-201-3 or does not meet one or more of the performance standards specified in Section R311-201-6, the individual's certification may be revoked.

(a) procedures for revocation are specified in Rule R305-7.

R311-201-10. Reciprocity.

(1) If the director determines that another state's certification program is equivalent to the certification program referred to in this rule, the applicant successfully passes the Utah certification examination, and payment of any fees associated with this rule are made, the director may issue a Utah certificate.

(a) The certificate will be valid until the expiration date of the previous state's certificate or the expiration of the certification period described in Subsection R311-201-4(3), whichever occurs first.

R311-201-12. UST Operator Training and Registration.

(1) To meet the operator training requirement 42 USC Section 6991i of the Solid Waste Disposal Act as amended by the Energy Policy Act of 2005, each UST facility must have UST facility operators that are trained and registered according to the requirements of this section.

(2) Each facility must have three classes of operators: A, B, and C.

(a) a facility may have more than one person designated for each operator class.

(b) an individual acting as a Class A or B operator may do so for more than one facility.

(3) The UST owner or operator must provide documentation to the director to identify the Class A, B, and C operators for each facility.

(a) if an owner or operator does not register and identify Class A, B, and C operators for a facility, the certificate of compliance for the facility may be revoked for failure to demonstrate substantial compliance with all applicable state and federal statutes, rules, and regulations.

(4) New Class A and B operators must be trained and registered within 30 days of assuming responsibility for an UST facility.

(5) New Class C operators must be trained before assuming the responsibilities of a Class C operator.

(6) The Class A operator shall be an owner, operator, employee, or individual designated under Subsection R311-201-12(6)(b).

(a) the Class A operator has primary responsibility for the broader aspects of the statutory and regulatory requirements and standards necessary to operate and maintain the UST system. The Class A operator must:

(i) have a general knowledge of UST systems;

(ii) ensure that UST records are properly maintained according to 40 CFR 280;

(iii) ensure that yearly [~~U~~]PST fees are paid;

(iv) ensure proper response to and reporting of emergencies caused by releases or spills from USTs;

(v) make financial responsibility documents available to the director as required; and

(vi) ensure that Class B and Class C operators are trained and registered.

(b) an owner or operator may designate a third-party Class B operator as a Class A operator if:

(i) the UST owner or operator is a financial institution or person who acquired ownership of an UST facility solely to protect a security interest in that property and has not operated the USTs at the facility;

(ii) all USTs at the facility are properly temporarily closed in accordance with 40 CFR 280.70 and Section R311-204-4; and

(iii) all USTs at the facility are empty in accordance with 40 CFR 280.70(a).

(7) The Class B operator must implement routine daily aspects of operation, maintenance, and recordkeeping for UST systems.

(a) the Class B operator shall be an owner, operator, employee, or third-party Class B operator. The Class B operator must:

(i) ensure that on-site UST operator inspections are conducted according to the requirements of Section R311-203-7;

(ii) ensure that UST release detection is performed according to 40 CFR 280 subpart D;

(iii) ensure that the status of the UST system is monitored for alarms and unusual operating conditions that may indicate a release;

(iv) document the reason for an alarm or unusual operating condition identified in Subsection R311-201-12(7)(iii), if it is not reported as a suspected release according to 40 CFR 280.50;

(v) ensure that appropriate release detection and other records are kept according to 40 CFR 280.34 and 280.45, and are made available for inspection;

(vi) ensure that spill prevention, overfill prevention, and corrosion protection requirements are met;

(vii) be on site for facility compliance inspections, or designate another individual to be on site for inspections;

(viii) ensure that suspected releases are reported according to the requirements of 40 CFR 280.50; and

(ix) ensure that Class C operators are trained and registered, and are on site during operating hours.

(8) Any individual providing services as a third-party Class B operator must be trained and registered in accordance with Subsection R311-201-12(10) and must:

(a) be certified in accordance with Rule R311-201 as:

(i) a [~~U~~]PST tester; or

(ii) a [~~U~~]PST installer as either a general installer or a service or repair technician; or

(b) meet the training requirements of a certified [~~U~~]PST inspector and document comprehensive or general liability insurance with limits of $250,000 minimum per occurrence.

(9) The Class C operator is an employee and is generally the first line of response to events indicating emergency conditions. A Class C operator must:

(a) be present at the facility at all times during normal operating hours;

(b) monitor product transfer operations according to 40 CFR 280.30(a), to ensure that spills and overfills do not occur;

(c) properly respond to alarms, spills, and overfills;

(d) notify Class A operators, Class B operators, or both, and appropriate emergency responders when necessary; and

(e) act in response to emergencies and other situations caused by spills or releases from an UST system that pose an immediate danger or threat to the public or to the environment, and that require immediate action.

(10) Operator training and registration.

(a) training and testing.

(i) applicants for Class A and B operator registration must successfully complete an approved operator training course within the six-month period before application.

(ii) the training course must be approved by the director, and shall include instruction in the following:

(A) notification;

(B) temporary and permanent closure;

(C) installation permitting;

(D) UST requirements of the 2005 Energy Policy Act;

(E) Class A, B, and C operator responsibilities;

(F) spill prevention;

(G) overfill prevention;

(H) UST release detection;

(I) corrosion protection;

(J) recordkeeping requirements;

(K) emergency response;

(L) product compatibility;
(M) Utah PST rules and regulations;
(N) UST financial responsibility; and
(O) delivery prohibition.
(iii) applicants for Class A and B operator registration must successfully pass a registration examination authorized by the director.
(A) the director shall determine the content of the examination.
(iv) an individual applying for Class A or B operator registration may be exempted from meeting the requirements of Subsections R311-201-12(10)(a)(i) and R311-201-12(10)(a)(iii) by completing the following within the six-month period before application:
(A) successfully passing a nationally recognized UST operator examination approved by the director; and
(B) successfully passing a Utah PST rules and regulations examination authorized by the director.
(v) the director shall determine the content of the examination.
(vi) Class C operators shall receive instruction in product transfer procedures, emergency response, and initial response to alarms and releases.
(b) registration application.
(i) applicants for Class A and B operator registration must:
(A) submit a registration application to the director;
(B) document proper training; and
(C) pay any applicable fees.
(ii) Class C operators shall be designated by a Class B operator.
(iii) the Class B operator must maintain a list identifying the Class C operators for each PST facility. The list must identify:
(A) each Class C operator;
(B) the date of training; and
(C) the trainer.
(iv) identification on the list serves as the operator registration for Class C operators.
(v) a registered Class A or B operator may act as a Class C operator by meeting the training and registration requirements for a Class C operator.
(vi) Class A and B registration shall be effective for a period of three years, and [~~shall not~~]may not lapse or become inactive if the registered operator leaves the employment of the company under which the registration was obtained.
(c) renewal of registration.
(i) Class A and B operators shall apply for renewal of registration not more than six months before the expiration of the registration by:
(A) submitting a completed application form;
(B) paying any applicable fees; and
(C) documenting successful completion of any re-training required by Subsection R311-201-12(10)(d).
(ii) if the director determines that the operator meets the requirements for registration, the director shall renew the applicant's registration for a period equal to the initial registration.
(iii) any applicant for renewal who has a registration that has been expired for more than two years before submitting a renewal application must successfully satisfy the training and examination requirements for initial registration under Subsection R311-201-12(10)(a) before receiving the renewal registration.
(d) re-training.
(i) a Class A operator is subject to re-training requirements if any facility for which the Class A operator has oversight is found to be out of compliance due to:
(A) lapsing of certificate of compliance;
(B) failure to provide acceptable financial responsibility; or
(C) failure to ensure that Class B and C operators are trained and registered.
(ii) a Class B operator is subject to re-training requirements if a facility for which the Class B operator has oversight is found to be out of compliance due to:
(A) failure to document [~~compliance, as determined by the Technical Compliance Rate;~~
~~(I) Technical Compliance Rate is determined using the EPA "UST and LUST Performance Definitions as of October 2018" and incorporated by reference.~~]spill prevention required by 40 CFR 280.35;
(B) failure to document overfill prevention required by 40 CFR 280.35;
(C) failure to document corrosion protection required by 40 CFR 280.31;
(D) failure to document release detection required by 40 CFR 280.40;
([~~B~~]E) failure to perform UST operator inspections required by Section R311-203-7; or
([~~C~~]F) failure to ensure that Class C operators are trained and registered, and are on site during operating hours.
(iii) to be re-trained, Class A and Class B operators must successfully complete the appropriate Class A or B operator training course and examination, or must complete an equivalent re-training course and examination approved by the director.
(iv) Class A and B operators must be re-trained within 90 days of the date of the determination of non-compliance, and shall submit documentation showing successful completion of the re-training to the director within 30 days of the re-training.
(A) if the documentation is not received by the director within 120 days of the date of the determination of non-compliance, the Class A or B operator's registration shall lapse.
(B) to re-register, the operator shall meet the requirements of Subsections R311-201-12(10)(a) and R311-201-12(10)(b).

(v) if a facility for which a Class A or B operator has oversight is found to be out of compliance under Subsection R311-201-12(10)(d)(i) or R311-201-12(10)(d)(ii), re-training is not required if the Class A or B operator successfully completes and documents re-training under Subsection R311-201-12(10)(d) for a prior determination of non-compliance that occurred during the previous nine months.

(11) Reciprocity.

(a) if the director determines that another state's operator training program is equivalent to the operator training program provided in this rule, the director may accept an applicant's Class A or Class B registration application, provided that the applicant:

(i) submits a completed application form;

(ii) passes the Utah PST rules and regulations examination referenced in Subsection R311-201-12(10)(a)(iv)(B); and

(iii) submits payment of any applicable registration fees.

(b) the Class A or Class B registration is valid until the Utah registration expiration described in Subsection R311-201-12(10)(b)(vi).

KEY: hazardous substances, administrative proceedings, underground storage tanks, petroleum storage tanks, revocation procedures
Date of Last Change: [~~May 21, 2024~~]2025
Notice of Continuation: March 8, 2022
Authorizing, and Implemented or Interpreted Law: 19-1-301; 19-6-105; 19-6-402; 19-6-403; 63G-4-102; 63G-4-201 through 205; 63G-4-503

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R311-203**	**Filing ID: 57442**

Agency Information

1. Title catchline:	Environmental Quality, Environmental Response and Remediation	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT 84116	
Mailing address:	PO Box 144840	
City, state and zip:	Salt Lake City, UT 84114-4840	
Contact persons:		
Name:	**Phone:**	**Email:**
David Wilson	385-251-0893	djwilson@utah.gov
Morgan Atkinson	801-979-2512	mpatkinson@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:	
R311-203. Petroleum Storage Tanks: Technical Standards	
3. Are any changes in this filing because of state legislative action?	Changes are because of legislative action.
If yes, any bill number and session:	HB 18 (2025 General Session)
4. Purpose of the new rule or reason for the change:	
HB 18, Petroleum Storage Tank Amendments, which was passed in the 2025 General Session made changes addressing registration of underground storage tanks (UST) and aboveground petroleum storage tanks and clarifies restrictions on petroleum storage tank installation companies. Modifications were made to Subsection R311-203-5(10) to clarify the existing Aboveground Petroleum Storage Tank (APST) testing requirements.	
5. Summary of the new rule or change:	
Section R311-203-2: Changes were made to notification requirements for work on Petroleum Storage Tanks. Notification is required no later than 30 days before completion of the work on PSTs or change of ownership of PST sites.	

Section R311-203-3: Changes were made to the time frame for notification of new installation permits. Certified PST installers must notify the director of the Division of Environmental Response and Remediation (DERR) 30 days before commencing work on PSTs.

Section R311-203-5: Rule changes in this section aim to clarify the existing PST testing requirements for owners or operators of APSTs. There are no additional requirements being imposed on these entities.

UST was changed to PST where appropriate.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

Sections R311-203-2 and R311-203-3: this rule change is expected to have a fiscal cost to state-owned facilities with APSTs due to the requirement for obtaining a permit for any new APST Installation. This cost is inestimable because it is unknown how many new APST systems will be installed by the state. Any additional costs or benefits were estimated in the fiscal note attached to HB18 (2025).

Section R311-203-5: this rule change is not expected to have a fiscal cost to state-owned facilities with APSTs because this rule was reorganized so that the requirements in this rule were clearer.

No additional requirements were added.

B. Local governments:

Sections R311-203-2 and R311-203-3: this rule change is expected to have a fiscal cost to local government-owned facilities with APSTs due to the requirement for obtaining a permit for any new APST Installation. This cost is inestimable because it is unknown how many new APST systems will be installed by local governments. Any additional costs or benefits were estimated in the fiscal note attached to HB18 (2025).

Section R311-203-5 :this rule change is not expected to have a fiscal cost to local government-owned facilities with APSTs because this rule was reorganized so that the requirements in this rule were clearer.

No additional requirements were added.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

Sections R311-203-2 and R311-203-3: this rule change is expected to have a fiscal cost to small business-owned facilities with APSTs due to the requirement for obtaining a permit for any new APST Installation. This cost is inestimable because it is unknown how many new APST systems will be installed by small businesses. Any additional costs or benefits were estimated in the fiscal note attached to HB18 (2025).

Section R311-203-5: this rule change is not expected to have a fiscal cost to small business-owned facilities with APSTs because this rule was reorganized so that the requirements in this rule were clearer. No additional requirements were added.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

Sections R311-203-2 and R311-203-3: this rule change is expected to have a fiscal cost to non-small business-owned facilities with APSTs due to the requirement for obtaining a permit for any new APST Installation. This cost is inestimable because it is unknown how many new APST systems will be installed by non-small businesses. Any additional costs or benefits were estimated in the fiscal note attached to HB18 (2025).

Section R311-203-5: This rule change is not expected to have a fiscal cost to non-small business-owned facilities with APSTs because this rule was reorganized so that the requirements in this rule were clearer. No additional requirements were added.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

These rule changes are not expected to have any fiscal impact on other persons because the rule changes will not apply to these entities.

F. Compliance costs for affected persons:

This rule change is expected to have a direct fiscal cost to affected persons who choose to install new APSTs.
$500 per site base fee.
$200/APST Inspection Fee
$200/APST Install fee

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$0**	**$0**	**$0**	**$0**	**$0**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-6-105	Section 19-6-403	Section 19-6-408

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until:	10/31/2025

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.)**:**

Date:	**Time:**	**Place** (physical address or URL)**:**
10/15/2025	02:00 PM	Multi Agency State Office Building 195 N 1950 W Salt Lake City, UT Room 1015

10. This rule change MAY become effective on:	11/14/2025

NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.

Agency Authorization Information

Agency head or designee and title:	Brent Everett, Director	**Date:**	09/11/2025

R311. Environmental Quality, Environmental Response and Remediation.
R311-203. Petroleum Storage Tanks: Technical Standards.
R311-203-1. Definitions.

Definitions are found in Rule R311-200.

R311-203-2. Notification.

(1) The owner or operator of an UST must notify the director when:
(a) new USTs are brought into use;
(b) the owner or operator changes;
(c) changes are made to the tank or piping system; and
(d) release detection, corrosion protection, or spill or overfill prevention systems are installed, changed, or upgraded.
(2) Notifications must be submitted on the current approved notification form.
(3) Notifications submitted to meet the requirements of Subsection R311-203-2(1) shall be submitted[~~ within 30 days of the completion of the work or the change of ownership.~~]:
(a) no later than 30 days before the completion of the work; and
(b) no later than 30 days after the change of ownership.
(4) To satisfy the requirement of Section 19-6-407 the certified installer shall[~~:~~
~~(a) ~~] complete the appropriate section of the form to be submitted by the owner or operator, and ensure that the notification form is submitted by the owner or operator [~~within~~]no later than 30 days [~~of completion of~~]before the installation[~~; or~~
~~(b) provide separate notification to the director within 60 days of the completion of the installation.~~].
(5) The owner or operator of an APST that is in service on or after May 5, 2021, must notify the director according to the requirements of Subsection 19-6-407(2).
(6) The owner or operator of an APST that was out of service before May 5, 2021[~~,~~];
(a) must notify the director according to the requirements of Subsection 19-6-407(2)(a)[~~(i)~~];
(b) is subject to delivery prohibition requirements in Section R311-206-8;
(c) is subject to closure requirements under [~~Subsections 19-6-407(2)(a)(iii) and (iv) and Section~~]Rule R311-204[~~-2~~];
(d) must demonstrate the tank has been emptied of any regulated substance to the lowest discharge point on the tank; and
(e) is subject to release reporting requirements as outlined in [~~Subsection 19-6-407(2)(a)(iv); and~~]Subsection R311-205-2(1)(f).
(7) The owner or operator of an APST that is not in service before May 5, 2021, is not subject to the requirements of Subsection 19-6-407(2)([~~e~~]f) and Section 19-6-412 unless the owner or operator elects to bring the APST back in service.
(8) The owner or operator of an APST must notify within 24 hours local emergency responders of a spill or overfill exceeding 25 gallons.

R311-203-3. New Installations, Permits.

(1) Certified [~~U~~]PST installers must notify the director at least [~~ten business~~]30 days, or another time period approved by the director, before commencing any of the following activities:
(a) the installation of a full [~~U~~]PST system or tank only;
(b) the installation of underground product piping for one or more tanks at a facility, separate from the installation of one or more tanks at a facility;
(c) the internal lining or an internal inspection of a previously-existing tank;
(d) the installation of a cathodic protection system on one or more previously-existing tanks at a facility;
(e) the installation of a bladder in a tank;
(f) any retro-fit, replacement, or installation that requires the cutting of a manway into the tank;
(g) the installation of a spill prevention or overfill prevention device;
(h) the installation of a leak detection monitoring system; or
(i) the installation of a containment sump or under-dispenser containment.
(2) The [~~U~~]PST installation company must submit to the director a[~~n~~] [~~U~~]PST installation permit fee of $200 when any of the activities listed in Subsections R311-203-3(1)(a) through R311-203-3(1)(f) is performed on an [~~U~~]PST system that has not qualified for a certificate of compliance before the commencement of the work.
(3) The fees assessed under Subsection 19-6-411(2)(a)(i) will be determined based on the number of full [~~U~~]PST installations performed by the installation company in the 12 months previous to the fee due date.
(a) installations for which the fee assessed under Subsections 19-6-411(2)(a)(ii) and R311-203-3(3) is charged shall count toward the total installations for the 12-month period.
(4) For the purposes of Subsections 19-6-411(2)(a)(ii), 19-6-407(1)(c), and R311-203-2(4), an installation is considered complete when:
(a) in the case of installation of a new [~~U~~]PST system, tank only, or product piping only, the new installation first holds a regulated substance; or

(b) in the case of installation of the components listed in Subsections R311-203-3(1)(d) through R311-203-3(1)(f), the new installation is functional and the [~~U~~]PST holds a regulated substance and is operational.

(5) If, before completion of an installation for which a[~~n~~] [~~U~~]PST installation permit fee is required, the owner or operator decides to install additional [~~U~~]PST system components, the installer shall notify the director of the change.

(a) when additions are made, the [~~U~~]PST installation permit fee shall be increased based on the additional number of tanks to be installed in accordance with Subsection 19-6-411(2)(a)(i) and the Department of Environmental Quality Fee Schedule, as approved annually by the Legislature.

(6) The number of [~~U~~]PST installation companies performing work on a particular installation will not be a factor in determining the [~~U~~]PST installation permit fee for that installation.

(a) each installation company must be identified on the [~~U~~]PST installation permit.

(7) When a new [~~U~~]PST system, tank only, product piping only, or new cathodic protection system is installed, the owner or operator must submit to the director an as-built drawing that meets the requirements of Subsection R311-200-1(2)([~~b~~]d).

R311-203-4. Petroleum Storage Tank Registration Fee.

(1) Registration fees will be assessed by the Department against tanks which are not permanently closed for the entire fiscal year, and will be billed per facility.

(2) Registration fees are due on July 1 of the fiscal year for which the assessment is made, or, for PSTs brought into use after the beginning of the fiscal year, registration fees are due when the tanks are brought into use, as a requirement for receiving a certificate of compliance.

(3) The director may waive all or part of the penalty assessed under Subsection 19-6-408(5) if no fuel has been dispensed from the tank on or after July 1, 1991 and if the tank has been properly closed according to Rules R311-204 and R311-205, or in other circumstances as approved by the director.

(4) The director shall issue a certificate of registration to owners or operators for individual PSTs at a facility if:

(a) the tanks are in use or are temporarily closed as outlined in 40 CFR Part 280 Subpart G; and

(b) the PST registration fee has been paid.

(5) Pursuant to Subsection 19-6-408(5)(c), past due PST registration fees, late payment penalties and interest must be paid before the director may issue or re-issue a certificate of compliance regardless of whether there is a new owner or operator at the facility.

(a) the director may decline active collection of past due registration fees, late payment penalties and interest if a certificate of compliance is not issued and the new owner or new operator properly closes the PSTs within one year of becoming the new owner or operator of the facility.

(6) A [~~U~~]PST will be assessed the higher registration fee established under Section 63J-1-504 if it is found to be out of compliance with the EPA Technical Compliance Rate during an inspection, and remains out of compliance for six months or greater following the initial inspection.

(a) the higher registration fee is due July 1 following the documented six-month period of non-compliance.

(7) When the director is notified of the existence of a previously unregistered regulated PST, the director shall assess the applicable notification fee and PST registration fee for the current fiscal year.

(a) if the PST is properly permanently closed within 90 days of the notification of the existence of the PST, the director may decline active collection of past due registration fees, late payment penalties, and interest for previous fiscal years.

R311-203-5. PST Testing Requirements.

(1) Tank tightness testing. The testing method must be able to test the PST system at the maximum level that could contain regulated substances.

(a) tanks with overfill prevention devices that prevent product from entering the upper portion of the tank may be tested at the maximum level allowed by the overfill device.

(2) Spill prevention equipment. An individual who conducts a test of spill prevention equipment to meet the requirements of 40 CFR 280.35(a)(1)(ii) must report the test results using:

(a) the form "Utah Spill Prevention Test"; or

(b) the form "Appendix C-3 Spill Bucket Integrity Testing Hydrostatic Test Method Single and Double-Walled Vacuum Test Method," found in PEI RP1200, "Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities;" or

(c) another form approved by the director.

(3) Containment sump testing. An individual who conducts a test of a containment sump used for interstitial monitoring to meet the requirements of 40 CFR 280.35(a)(1)(ii) or a test of a piping containment sump or under-dispenser containment to meet the requirements of Section R311-206-11 must report the test results using:

(a) the form "Utah Containment Sump Test"; or

(b) the form "Appendix C-4 Containment Sump Integrity Testing Hydrostatic Testing Method," found in PEI RP1200; or

(c) another form approved by the director.

(4) When a sump sensor is used as an automatic line leak detector, the secondary containment sump must be tested for tightness annually according to the manufacturer's guidelines or standards, or by another method approved by the director.

(a) the sensor shall be located as close as is practicable to the lowest portion of the sump.

(5) Cathodic protection testing. Cathodic protection tests must meet the inspection criteria outlined in 40 CFR 280.31(b), or other criteria approved by the director. The tester who performs the test must provide the following information:

(a) location of [~~at least three~~]test points [~~per~~]for each tank;
(b) location of one remote test point for galvanic systems;
(c) test results in volts or millivolts;
(d) pass or fail determination for each tank, line, flex connector, or other [~~U~~]PST system component tested;
(e) the criteria by which the pass or fail determination is made;
(f) a site plat showing locations of test points; and
(g) a re-test of any cathodic protection system is required within six months of any below-grade work that may harm the integrity of the system.

(6) [~~U~~]PST testers performing tank and line tightness testing must include the following as part of the test report:
(a) pass or fail determination for each tank or line tested;
(b) measured leak rate;
(c) test duration;
(d) product level for tank tests;
(e) pressure used for pressure tests;
(f) type of test; and
(g) test equipment used.

(7) overfill prevention equipment inspection. An individual who conducts an inspection of overfill prevention equipment to meet the requirements of 40 CFR 280.35(a)(2) must report the results using:
(a) the form "Appendix C-5 UST Overfill Equipment Inspection Automatic Shutoff Device and Ball Float Valve," found in PEI RP1200, when the overfill prevention is provided by either an automatic shutoff device or a ball float valve;
(b) the form "Appendix C-6 Overfill Alarm Operation Inspection," found in PEI RP1200, when overfill prevention is provided by an overfill alarm; or
(c) another form approved by the director.

(8) Automatic tank gauge inspection. An individual who conducts an inspection of automatic tank gauges to meet the requirements of 40 CFR 280.40(a)(3) must report the results using:
(a) the form "Appendix C-7 Automatic Tank Gauge Operation Inspection," found in PEI RP1200, and if the PST system or any portion thereof is interstitially monitored, "Appendix C-8: Liquid Sensor Functionality Testing," found in PEI RP1200; or
(b) another form approved by the director.

(9) Automatic line leak detector testing. An individual who conducts a test of automatic line leak detectors to meet the requirements of 40 CFR 280.40(a)(3) must report the results using:
(a) the form "Appendix C-9 Mechanical and Electronic Line Leak Detector Performance Tests," found in PEI RP1200; or
(b) another form approved by the director.

(10) Leak Detection and Testing Requirements for APSTs:
(a) annual line tightness testing or monthly monitoring is required for underground piping associated with APSTs.
(i) [~~an individual who conducts a tightness test of product lines must perform the test as set forth in 40 CFR 280.44(b)~~]line tightness tests must meet the requirements of 40 CFR-280.44(b) and Subsection R311-203-5(6).
(ii) [~~when pressurized underground product piping is connected to an APST that is not double-walled, sensor-equipped, and monitored monthly, the product piping must be tested for tightness annually. The test must meet the requirements of Subsection R311-203-5(6)~~]containment sumps associated with monthly monitoring must be tested every three years. The test must meet the requirements of Subsection R311-203-5(3).
(iii) another method may be used if approved by the director.
(b) spill prevention equipment associated with an APST must meet the standards set forth in International Fire Code (IFC) 2306.6.2.6 referenced in the Utah State Fire Code adopted pursuant to Section 15A-5-103.
(c) leak detection requirements, beginning July 1, 2026, an APST that rest[~~ing~~]s directly on the ground must [~~perform monthly interstitial monitoring, a monthly 0.2 gallon per hour release detection test, or a tank tightness test every 5 years. The test must meet the requirements of Subsection R311-203-5(1).~~]meet one of the following:
(i) perform monthly interstitial monitoring;
(ii) conduct a monthly 0.2 gallon per hour release detection test; or
(iii) complete a tank tightness test every five years. The test must meet the requirements of Subsection R311-203-5(1).
(d) corrosion protection, beginning July 1, 2026, [~~if applicable, ~~]an APST[~~s~~] that rests directly on the ground[~~ and~~], associated piping and ancillary equipment subject to external corrosion [~~are required to~~]must have cathodic protection that meet[~~s~~] the standards set forth in IFC 5704.2.7.9 and National Fire Protection Agency (NFPA) 30.23.3.5 and must have a passing cathodic protection test every 3 years[~~. The test must~~] that meet the requirements of Subsection R311-203-5(5).
(e) overfill prevention devices, beginning July 1, 2026, an APST [~~shall~~]must have an overfill prevention device that meet[~~s~~] the standards set forth in IFC 2306.6.2.3, 5704.2.7.5.8 and 5704.2.927.5 and must have an overfill prevention equipment inspection performed every three years. The overfill prevention equipment inspection must meet the requirements of Subsection R311-203-5(7).
(f) automatic line leak detector, beginning July 1, 2026, an APST with [~~pressurized~~]underground product piping:[~~ shall have an automatic line leak detector that meets the standards set forth in IFC 2306.7.7.1 and must have an automatic line leak detector test performed annually. The test must meet the requirements of Subsection R311-203-5(9).~~]
(i) must have an automatic line leak detector that meet the requirements of 40 CFR 280.44(a);
(ii) must have an automatic line leak detector test performed annually that meet the requirements of Subsection R311-203-5(9); or
(iii) may use another method if approved by the director.

R311-203-6. Secondary Containment and Under-Dispenser Containment.

(1) Secondary containment for tanks and piping.

(a) to meet the requirements of Subsection 42 USC 6991b(i) of the Solid Waste Disposal Act, tanks and product piping that are installed as part of an UST system after October 1, 2008 and before January 1, 2017 must have secondary containment if the installation is located 1,000 feet or less from an existing community water system or an existing potable drinking water well.

(b) the secondary containment installed under Subsection R311-203-6(1) must meet the requirements of 40 CFR 280.42(b), and shall be monitored monthly for releases from the tank and piping.

(i) monthly monitoring must meet the requirements of 40 CFR 280.43(g).

(c) containment sumps for piping installed under Subsection R311-203-6(1) are required:

(i) at the submersible pump or other location where the piping connects to the tank;

(ii) where the piping connects to a dispenser, or otherwise goes aboveground; and

(iii) where double-walled piping that is required under Subsection R311-203-6(1) connects with existing piping.

(d) containment sumps for piping that is installed under Subsection R311-203-6(1) must:

(i) contain submersible pumps, check valves, unburied risers, flexible connectors, and other transitional components that connect the piping to the tank, dispenser, or existing piping; and

(ii) meet the requirements of Subsection R311-203-6(2)(b).

(e) in the case of a replacement of tank or piping, only the portion of the UST system being replaced is subject to the requirements of Subsection R311-203-6(1).

(i) if less than 100% of the piping from a tank to a dispenser is replaced, the requirements of Subsection R311-203-6(1) applies to new product piping that is installed.

(ii) the closure requirements of Rule R311-205 apply to product piping that is taken out of service.

(iii) when new piping is connected to existing piping that is not taken out of service, the connection between the new and existing piping must be secondarily contained, and monitored for releases according to 40 CFR 280.43(g).

(f) the requirements of Subsection R311-203-6(1) do not apply to:

(i) piping that meets the requirements for "safe suction" piping in 40 CFR 280.41(b)(2); or

(ii) piping that connects two or more tanks to create a siphon system.

(g) the requirements of Subsection R311-203-6(1) apply to emergency generator USTs installed after October 1, 2008.

(2) Under-dispenser containment.

(a) to meet the requirements of Subsection 42 USC 6991b(i) of the Solid Waste Disposal Act, new motor fuel dispenser systems installed after October 1, 2008 and before January 1, 2017, and connected to an UST, must have under-dispenser containment if the installation is located 1,000 feet or less from an existing community water system or an existing potable drinking water well.

(b) the under-dispenser containment must:

(i) be liquid-tight on its sides, bottom, and at penetrations;

(ii) be compatible with the substance conveyed by the piping; and

(iii) allow for visual inspection and access to the components in the containment system, or be continuously monitored for the presence of liquids.

(c) if an existing dispenser is replaced, the requirements of Subsection R311-203-6(2) apply to the new dispenser if any equipment used to connect the dispenser to the PST system is replaced.

(i) this equipment includes unburied flexible connectors, risers, and other transitional components that are beneath the dispenser and connect the dispenser to the product piping.

(3) The requirements of Subsections R311-203-6(1) and R311-203-6(2) do not apply if the installation is located more than 1,000 feet from an existing community water system or an existing potable drinking water well.

(a) the PST owner or operator must provide to the director documentation to show that the requirements of Subsections R311-203-6(1) and R311-203-6(2) do not apply to the installation.

(b) the documentation shall be provided at least 60 days before the beginning of the installation, and shall include:

(i) a detailed to-scale map of the proposed installation that demonstrates that no part of the installation is within 1,000 feet of any community water system, potable drinking water well, or any well the owner or operator plans to install at the facility; and

(ii) a certified statement by the owner or operator explaining who researched the existence of a community water system or potable drinking water well, how the research was conducted, and how the proposed installation qualifies for an exemption from the requirements of Subsections R311-203-6(1) and R311-203-6(2).

(4) To determine whether the requirements of Subsections R311-203-6(1) and R311-203-6(2) apply, the distance from the UST installation to an existing community water system or existing potable drinking water well shall be measured from the closest part of the new UST, piping, or motor fuel dispenser system to:

(a) the closest part of the nearest community water system, including:

(i) the location of the wellheads for groundwater and the location of the intake points for surface water;

(ii) water lines, processing tanks, and water storage tanks; and

(iii) water distribution[~~,~~] and service lines under the control of the community water system operator[~~,~~]; or

(b) the wellhead of the nearest existing potable drinking water well.

(5) If a new UST facility is installed, and is not within 1,000 feet of an existing community water system or an existing potable drinking water well, the requirements of Subsections R311-203-6(1) and R311-203-6(2) apply if the owner or operator installs a potable drinking water well at the facility that is within 1,000 feet of the UST, piping, or motor fuel dispenser system, regardless of the sequence of installation of the UST system, dispenser system, and well.

(6) To meet the requirements of 40 CFR 280.20, tanks and product piping that are installed or replaced as part of an UST system on or after January 1, 2017 must be secondarily contained and use interstitial monitoring in accordance with 40 CFR 280.43(g).

R311-203-7. Operator Inspections.

(1) Owners and operators must perform periodic inspections in accordance with 40 CFR 280.36.

(a) inspections must be conducted by or under the direction of the designated Class B operator.

(b) the Class B operator must ensure that documentation of each inspection is kept and made available for review by the director.

(2) The individual who conducts inspections to meet the requirements of 40 CFR 280.36(a)(1) or 208.36(a)(3) shall use the form "UST Operator Inspection- Utah" or another form approved by the director.

(3) An UST facility whose tanks are properly temporarily closed according to 40 CFR 280.70 and Section R311-204-4 must have an annual operator inspection.

(4) An owner or operator who conducts visual checks of tank top containment sumps and under-dispenser containment sumps for compliance with piping leak detection in accordance with 40 CFR 280.43(g) must conduct the visual checks monthly and report the results on the operator inspection form.

R311-203-8. Unattended Facilities.

(1) [~~A~~]an [~~U~~]PST facility that:

(a) normally has no employee on site or is open to dispense fuel at times when no employee or trained operator is on site must have:

(i) a sign posted in a conspicuous place, giving the name and telephone number of the facility owner, operator, or local emergency responders; and

(ii) an emergency shutoff device in a readily accessible location, if the facility dispenses fuel.

KEY: fees, hazardous substances, petroleum, underground storage tanks
Date of Last Change: [~~July 12, 2024~~]2025
Notice of Continuation: March 8, 2022
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-403; 19-6-408

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R311-204**	**Filing ID: 57443**

Agency Information

1. Title catchline:	Environmental Quality, Environmental Response and Remediation	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT 84116	
Mailing address:	PO Box 144840	
City, state and zip:	Salt Lake City, UT 84114-4840	
Contact persons:		
Name:	**Phone:**	**Email:**
David Wilson	385-251-0893	djwilson@utah.gov
Morgan Atkinson	801-979-2512	mpatkinson@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:	
R311-204. Petroleum Storage Tanks: Closure and Remediation	
3. Are any changes in this filing because of state legislative action?	Changes are because of legislative action.
If yes, any bill number and session:	HB 18 (2025 General Session)
4. Purpose of the new rule or reason for the change:	
HB 18, Petroleum Storage Tank Amendments, which was passed in the 2025 General Session struck out Subsection 19-6-407(2)(a)(iii) which was referenced in Subsection R311-204-2(1)(a) for the requirement for 30-day notification for closure of	

APSTs. The requirement for 30-day notification before the closure for Aboveground Petroleum Storage tanks (APSTs) was added to match the requirement for Underground Storage Tanks (USTs).

5. Summary of the new rule or change:

Subsection R311-204-2(1)(a): HB 18 (2025) struck out Subsection 19-6-407(2)(a)(iii) which is referenced in this rule for the requirement for 30-day notification for closure of APSTs. The requirement for 30-day notification before the closure for Aboveground Petroleum Storage tanks (APSTs) was added to match the requirement for Underground Storage Tanks (USTs).

Subsection R311-204-5(2): Changed "UST remover" to "PST remover" due to the definition change in HB 18 (2025).

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

This rule change is not expected to have a fiscal cost to state-owned facilities with APSTs because the 30-day notification requirement is currently required and matches the same notification requirement for closure of USTs.

B. Local governments:

This rule change is not expected to have a fiscal cost to local government-owned facilities with APSTs because the 30-day notification requirement is currently required and matches the same notification requirement for closure of USTs.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

This rule change is not expected to have a fiscal cost to small business-owned facilities with APSTs because the 30-day notification requirement is currently required and matches the same notification requirement for closure of USTs.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

This rule change is not expected to have a fiscal cost to non-small business-owned facilities with APSTs because the 30-day notification requirement is currently required and matches the same notification requirement for closure of USTs.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

These rule changes are not expected to have any fiscal impacts on other persons because the rule changes will not apply to these entities.

F. Compliance costs for affected persons:

This rule change is not expected to have a fiscal cost to affected person-owned facilities with APSTs because the 30-day notification requirement is currently required and matches the same notification requirement for closure of USTs.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$0**	**$0**	**$0**	**$0**	**$0**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0

Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-6-105	Section 19-6-402	Section 19-6-403

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until:	10/31/2025

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.)**:**

Date:	**Time:**	**Place** (physical address or URL)**:**
10/15/2025	02:00 PM	Multi Agency State Office Building 195 N 1950 W Salt Lake City, UT Room 1015

10. This rule change MAY become effective on:	11/14/2025

NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.

Agency Authorization Information

Agency head or designee and title:	Brent Everett, Director	**Date:**	09/11/2025

R311. Environmental Quality, Environmental Response and Remediation.
R311-204. Petroleum Storage Tanks: Closure and Remediation.
R311-204-1. Definitions.

Definitions are found in Rule R311-200.

R311-204-2. Petroleum Storage Tank Closure Plan.

(1) Owners or operators of PSTs or any portion thereof which are to be permanently closed or undergo change-in-service must submit a permanent closure plan to the director[~~.~~] at least 30-days before the closure of the PSTs;

[~~(a)~~] the permanent closure plan shall be submitted by the owner or operator as fulfillment of the 30-day permanent closure notification requirement in accordance with [~~Subsection 19-6-407(2)(a)(iii) for APSTs and~~]40 CFR 280.71(a) [~~Subpart G~~]for USTs.

(2) If a tank is to be removed as part of corrective action as allowed by 40 CFR 280 Subpart G, the owner or operator is not required to submit a closure plan, but must meet the requirements of 40 CFR 280.66(d) before any removal activity takes place, and must submit a corrective action plan as required by 40 CFR 280.66.

(3) The closure plan shall address applicable issues involved with permanent closure, change-in-service, or reuse of APSTs, including:

(a) product removal;
(b) sludge disposal;
(c) vapor purging or inerting;
(d) removing or securing and capping product piping;
(e) removing vent lines or securing vent lines open;
(f) tank cleaning;

(g) environmental sampling;
(h) contaminated soil and water management;
(i) in-place tank disposal or tank removal;
(j) transportation of tank;
(k) permanent disposal; and
(l) other disposal activities which may affect human health, human safety, or the environment.

(4) No PST shall be permanently closed or undergo change-in-service before the owner or operator receiving final approval of the submitted permanent tank closure plan by the director, except as outlined in Subsection R311-204-2(2).

(a) closure plan approval is effective for a period of one year.

(b) if the PST has not been permanently closed or undergone change-in-service as proposed within one year following approval from the director, the plan must be re-submitted for approval, unless otherwise approved by the director.

(5) Permanent closure plans shall be prepared using the current approved form according to guidance furnished by the director.

(6) The owner or operator shall ensure that the approved permanent closure plan and approval letter are on site during closure activities.

(7) Any deviation from or modification to an approved closure plan must be approved by the director before implementation, and must be submitted in writing to the director.

(8) The director must be notified at least three business days before the start of closure activities.

R311-204-3. Disposal.

(1) Tank labeling. Immediately after being removed, tanks which are permanently closed by removal must be labeled with the following in letters at least two inches high:

(a) the facility identification number;
(b) the substance contained; and
(c) the date removed: "month/day/year."

(2) Removed tanks shall be expeditiously disposed of as regulated PSTs by the following methods:

(a) the tank may be cut up after the interior atmosphere is first purged or inerted.
(b) the tank may be crushed after the interior atmosphere is first purged or inerted.
(c) the tank may not be used to store food or liquid intended for human or animal consumption.
(d) the tank may be disposed of in a manner approved by the director.

(3) Any removed APST that is to be reused as an APST must be recertified by the manufacturer of the tank or undergo a tank inspection, conducted by a qualified contractor, using a nationally recognized standard such as STI SP001 or API 653.

(4) Tank transportation. Used tanks which are transported on roads of the state must be cleaned inside the tank before transportation, and be free of product, free of vapors, or made inert during transport.

R311-204-4. Closure Notice.

(1) Owners or operators of USTs which were permanently closed or had a change-in-service before December 22, 1988 must submit a completed closure notice, unless the tanks were properly closed on or before January 1, 1974.

(2) Owners or operators of USTs which are permanently closed after December 22, 1988, and APSTs closed or having a change-in-service as defined in 40 CFR 280 Subpart G after May 5, 2021 must submit a completed closure notice form and the following information within 90 days after tank closure:

(a) results from the closure site assessment conducted in accordance with Rule R311-205, including analytical laboratory results and chain of custody forms; and

(b) a site plat displaying depths and distances such that the sample locations can be determined solely from the site plat. The site plat shall include:

(i) scale;
(ii) north arrow;
(iii) streets;
(iv) property boundaries;
(v) building structures;
(vi) utilities;
(vii) PST system location;
(viii) location of any contamination observed or suspected during sampling;
(ix) location and volume of any stockpiled soil;
(x) the extent of the excavation zone; and
(xi) any other relevant features.

(c) sample identification numbers used on the site plat shall correspond to the chain of custody form and the lab analysis report.

(3) Owners and operators of PSTs that are temporarily closed for a period greater than three months must submit a completed temporary closure notice within 120 days after the beginning of the temporary closure.

(4) Closure notices for permanent and temporary closure shall be submitted on the current approved forms.

R311-204-5. Remediation.

(1) Any PST release management, abatement, investigation, corrective action or evaluation activities performed for a fee, or in connection with services for which a fee is charged, must be performed under the supervision of a certified PST consultant, except as outlined in Subsections 19-6-402(6)(b), R311-201-2(1), and R311-204-5(2).

(2) At the time of PST closure, a certified [~~U~~]PST remover may over-excavate and properly dispose of up to 50 cubic yards of contaminated soil per facility, or another volume approved by the director, in addition to the minimum amount required for closure of the PST.

(a) this over-excavation may be performed without the supervision of a certified PST consultant.

(b) appropriate confirmation samples must be taken by a certified sampler in accordance with Rule R311-201 to determine the extent and degree of contamination.

KEY: hazardous substances, petroleum, underground storage tanks
Date of Last Change: [~~May 21, 2024~~]2025
Notice of Continuation: March 8, 2022
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-402; 19-6-403

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R311-212**	**Filing ID: 57444**

Agency Information

1. Title catchline:	Environmental Quality, Environmental Response and Remediation	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT 84116	
Mailing address:	PO Box 144840	
City, state and zip:	Salt Lake City, UT 84114-4840	
Contact persons:		
Name:	**Phone:**	**Email:**
David Wilson	385-251-0893	djwilson@utah.gov
Morgan Atkinson	801-979-2512	mpatkinson@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:	
R311-212. Administration of the Petroleum Storage Tank Fund Loan Program	
3. Are any changes in this filing because of state legislative action?	Changes are because of legislative action.
If yes, any bill number and session:	HB 18 (2025 General Session)
4. Purpose of the new rule or reason for the change:	
HB 18, Petroleum Storage Tank Amendments, which was passed in the 2025 General Session made changes that allows owners and operators of Aboveground Petroleum Storage Tanks (APSTs) to apply for loans from the Petroleum Storage Tank Fund Loan Program for the purpose of upgrading, replacing, or permanently closing an APST.	
5. Summary of the new rule or change:	
The term "Underground Storage Tanks" (USTs) has been updated to the broader term "Petroleum Storage Tanks" (PSTs) in multiple parts of this rule since "Aboveground Petroleum Storage Tanks" (APSTs) are now permitted to apply for a loan from the Petroleum Storage Tanks Loan Program. Loan Forms, which were incorporated by reference, were updated by changing the wording "Underground Storage Tanks" to "Petroleum Storage Tanks".	

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

This rule change is not expected to have a fiscal cost or savings to state-owned facilities with APSTs because it is unlikely that state-owned facilities will apply for a 0% interest loan for the purpose of upgrading, replacing, or permanently closing state owned APSTs.

Any additional compliance costs to state government revenues or expenditures were accounted for in the fiscal note attached to HB 18 (2025).

B. Local governments:

This rule change is not expected to have a fiscal cost or savings to local government-owned APSTs because it is unlikely that local government-owned facilities will apply for a 0% interest loan for the purpose of upgrading, replacing or repairing local government-owned APSTs.

Any additional compliance costs to local government revenues or expenditures were accounted for in the fiscal note attached to HB 18 (2025).

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

This rule change is expected to have a fiscal savings to small businesses-owned facilities with APSTs due to the ability of small businesses to use this 0% interest loan for the purpose of upgrading, replacing, or permanently closing an APST. This savings is inestimable because it is unknown how many small businesses will apply for a loan from the PST Loan Fund.

Any additional compliance costs to small businesses' revenues or expenditures were accounted for in the fiscal note attached to HB 18 (2025).

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

This rule change is expected to have a fiscal savings to non-small businesses-owned facilities with APSTs due to the ability of non-small businesses to use this 0% interest loan for the purpose of upgrading, replacing, or permanently closing an APST. This savings is inestimable because it is unknown how many non-small businesses will apply for a loan from the PST Loan Fund.

Any additional compliance costs to non-small businesses' revenues or expenditures were accounted for in the fiscal note attached to HB 18 (2025).

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

These rule changes are not expected to have any fiscal impact on other persons because the rule changes will not apply to these entities.

F. Compliance costs for affected persons:

This rule change is expected to have a direct fiscal savings (0% interest) to affected persons who choose to apply for a PST loan for the purpose of upgrading, replacing, or permanently closing an APST.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0

Total Fiscal Cost	**$0**	**$0**	**$0**	**$0**	**$0**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
H. Department head comments on fiscal impact and approval of regulatory impact analysis:					
The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.					

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:		
Section 19-6-105	Section 19-6-403	Section 19-6-409

Incorporation by Reference Information

8. Incorporation by Reference:	
A. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*)**:**	
Official Title of Materials Incorporated (from title page)	Loan Application version 7/31/25
Publisher	Utah Department of Environmental Quality Division of Environmental Response and Remediation
Issue Date	7/31/25

B. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*)**:**	
Official Title of Materials Incorporated (from title page)	Loan Agreement version 7/31/25
Publisher	Utah Department of Environmental Quality Division of Environmental Response and Remediation
Issue Date	7/31/25

C. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*)**:**	
Official Title of Materials Incorporated (from title page)	Trust Deed version 7/31/25
Publisher	Utah Department of Environmental Quality Division of Environmental Response and Remediation
Issue Date	7/31/25

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.	
A. Comments will be accepted until:	10/31/2025

B. A public hearing (optional) will be held (The public may request a hearing by submitting a written request to the agency, as outlined in Section 63G-3-302 and Rule R15-1.)**:**		
Date:	**Time:**	**Place** (physical address or URL)**:**
10/15/2025	02:00 PM	Multi Agency State Office Building 195 N 1950 W Salt Lake City, UT Room 1015

10. This rule change MAY become effective on:	11/14/2025
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

Agency head or designee and title:	Brent Everett, Director	**Date:**	09/11/2025

R311. Environmental Quality, Environmental Response and Remediation.
R311-212. Administration of the Petroleum Storage Tank Fund Loan Program.
R311-212-1. Definitions.

Definitions are found in Rule R311-200.

R311-212-2. Declaration of Loan Application Periods, and Loan Application Submittal.

(1) Application for a loan must be made on forms incorporated in Section R311-212-10, in accordance with Subsection 19-6-409(9)[~~.~~]**;**

[~~(a)~~] loan applications will be accepted during application periods designated by the director.

(2) At least one application period shall be designated each calendar year if, on January 1:

(a) the current balance due for outstanding loans is less than 25% of the cash balance of the Petroleum Storage Tank Fund; and

(b) the cash balance of the Fund exceeds $10,000,000.

(3) If the requirements of Subsections R311-212-2(2)(a) and R311-212-2(2)(b) are not met on January 1, but are met at a later time in the calendar year, the director may designate an application period.

(4) An open application period will close if:

(a) the current balance due for outstanding loans exceeds 25% of the cash balance of the Fund; or

(b) the cash balance of the Fund is less than $10,000,000.

(5) If an open application period closes as required by Subsection R311-212-2(4), loan applications currently under review when the application period closes may be renewed when a new application period opens, unless the applicant must re-apply as required by Subsection R311-212-5(1).

(6) Applications must be received by the director by 5 p.m. on the last day of the application period.

(7) Loan applications received outside the application period will be invalid.

R311-212-3. Eligibility Review.

(1) The director shall determine if the applicant meets the eligibility criteria stated in Subsections 19-6-409(5) through 19-6-409(8).

(2) To meet the eligibility requirements of Subsection 19-6-409(6) the applicant must, for facilities for which the applicant requests a loan:

(a) demonstrate current compliance with all state PST and federal UST laws, rules and regulations, including compliance with requirements for remediation of facilities with leaking [~~U~~]PSTs; or

(b) must be able to achieve compliance with the loan proceeds.

(3) To meet the eligibility requirements of Subsection 19-6-409(6) the applicant must meet the following for facilities owned or operated by the applicant for which the applicant does not request a loan:

(a) the applicant has demonstrated current compliance with all state PST and federal UST laws, rules and regulations, including compliance with requirements for remediation of facilities with leaking [~~U~~]PSTs;

(b) regulated [~~U~~]PSTs owned by the applicant have met the requirements of Subsection 19-6-412(2) and have a current certificate of compliance;

(c) the applicant has paid PST registration fees, interest, and penalties which have been assessed; and

(d) the applicant has paid applicable petroleum storage tank fees, interest, and penalties which have been assessed.

(4) To meet the requirements of Subsection 19-6-409(5), the loan request must be for:

(a) upgrading [~~U~~]PSTs;

(b) replacing [~~U~~]PSTs; or

(c) permanently closing petroleum [~~U~~]PSTs.

(5) if an applicant requests a loan for closing [~~U~~]PSTs which will be replaced by [~~aboveground~~]storage tanks that are not regulated under the Petroleum Storage Tank Act, the loan, if approved, will be only for closing the [~~U~~]PSTs[~~.~~]**;**

[~~(a)~~] the security pledged by the applicant for a loan to replace [~~U~~]PSTs with [~~aboveground~~]storage tanks that are not regulated under the Petroleum Storage Tank Act will be subject to the limitations in Section R311-212-6.

R311-212-4. Prioritization of Loan Applications.

(1) When determined by the director to be necessary, applications received during a designated application period shall be prioritized by total points assigned.

(a) ten points shall be given for each item that applies to the applicant or the facility for which the loan is requested:

(i) the applicant has less than $1,000,000 annual gross income and fewer than five full-time employee equivalents and is not owned or operated by any person not meeting the income and employee criteria.

(ii) the applicant's income is derived solely from operations at [~~U~~]PST facilities.

(iii) the applicant owns or operates no more than two facilities.

(iv) the facility is located in a U.S. Census Bureau population unit containing fewer than 5,000 people.

(v) there are no more than three operating retail outlets selling motor fuel within 15 miles road distance in all directions.

(vi) loan proceeds will be used solely for replacing or upgrading petroleum [~~U~~]PSTs.

(vii) [~~U~~]PSTs at the facility are greater than 15 years old.

(b) one point shall be given for each road mile of distance from the facility to the nearest operating retail outlet selling motor fuel, to a maximum of 30 points.

(2) Applications which receive the same number of points shall be sub-prioritized according to the date postmarked or the date delivered to the director by any other method.

(3) Applications shall remain in priority order regardless of availability of funds until a new application period is declared[~~.~~];

[~~(a)~~] when a new application period begins, priority order of applications which have not been reviewed terminates.

(4) An applicant whose application has not been reviewed or an applicant whose application has not been approved because the applicant has not satisfied the requirements of Subsections 19-6-409(5) through 19-6-409(8), loses eligibility to apply for a loan and must submit a new application in the subsequent period to be considered for a loan in that period.

R311-212-5. Loan Application Review.

(1) The applicant shall ensure that the loan application is complete[~~.~~];

[~~(a)~~] the completed application with supporting documents must contain information required by the application.

(2) If the applicant does not submit a complete application within 60 days of eligibility approval, the applicant's eligibility approval shall be forfeited, and the applicant must re-apply.

(3) Costs incurred in processing the application shall be the responsibility of and paid for by the applicant including:

(a) appraisals;

(b) title reports; or

(c) UCC-1 releases.

(i) the director may require payment of costs in advance.

(ii) the director [~~shall~~]may not reimburse costs which have been expended, even if the loan fails to close, regardless of the reason.

(4) The review and approval of the application shall be based on information provided by the applicant, and:

(a) review of any records and documents on file;

(b) verification of any information provided by the applicant;

(c) review of credit worthiness and security pledged; and

(d) review of a site construction work plan.

(5) The applicant must close the loan within 30 days after the director conveys the loan documents for the applicant's signature.

(a) if the applicant fails to close the loan within this time period, the approval is forfeited and the applicant must re-apply.

(b) an exception to the 30-day period may be granted by the director if the closing is delayed due to circumstances beyond the applicant's control.

R311-212-6. Security for Loans.

(1) When an applicant applies for a loan of greater than $30,000, the applicant must pledge for security personal or real property which meets or exceeds the following criteria:

(a) the loan amount may not be greater than 80% of the value of the applicant's equity in the security for cases where the Department obtains a first mortgage position; or

(b) the loan amount may not be greater than 60% of the value of the applicant's equity in the security for cases where the Department obtains a second mortgage position.

(2) The applicant shall provide acceptable documentation of the value of the property to be used as security using:

(a) a current written appraisal, performed by a State of Utah certified appraiser;

(b) a current county tax assessment notice; or

(c) other documentation acceptable to the director.

(3) A title report on all real property and a UCC-1 clearance on all personal property used as security shall be submitted to the director by a title company or appropriate professional person approved by the director.

(4) When the title report indicates an existing lien or encumbrance on real property to be used as security, the existing lien holders may subordinate their interest in favor of the Department[~~.~~];

[~~(a)~~] the director will accept no less than a second mortgage position on real property pledged for loan security.

(5) When a corporation seeks a loan, its principals must guarantee the loan personally.

(6) The applicant must provide a complete financial statement with cash flow projections for debt service.

(7) [~~Aboveground s~~]Storage tanks that are not regulated under the Petroleum Storage Tank Act and real property on which they are located will not be acceptable as security.

(8) [~~U~~]PSTs and the real property on which they are located will not be acceptable as security unless:

(a) the [~~U~~]PST facility offered for security has not had a petroleum release which has not been properly remediated; and

(b) the applicant provides documentation to demonstrate the [~~U~~]PST facility is currently in compliance with the loan eligibility requirements set forth in Section R311-212-3.

(9) If a loan is made without security, the maximum loan repayment period will be seven years.

R311-212-7. Procedure for Making Loans.

(1) Loan funds shall be obligated after documents to secure a loan are complete, processed, and appropriately signed by the applicant and the director.

(2) The director may approve a borrower's request for one initial disbursement of loan proceeds to the borrower after the loan is closed, and before work begins.

(a) the initial disbursement shall be for the lesser of 40% of the approved loan amount or the amount required by the borrower's contractor as an initial payment before work is done.

(b) disbursement of the remaining loan proceeds, or disbursement of the entire loan proceeds if no initial disbursement is made, shall be made after work at the site is completed, and paperwork and notifications have been received by the director.

(i) if an initial loan disbursement is made, the borrower shall begin work on the project no later than 60 days, or another time period approved by the director, following the initial disbursement.

(ii) disbursement of the remaining loan proceeds shall be made no later than 180 days, or another time period approved by the director, following the initial disbursement.

(c) if work is not initiated or completed within the time periods established in Subsection R311-212-7(2)(a), the loan balance must be paid within 30 days of notice provided by the director.

(3) Loan proceeds may not be used to pay [~~U~~]PST registration fees, penalties, or interest assessed under Section 19-6-408 or petroleum storage tank fees, penalties, or interest assessed under Section 19-6-411.

(4) Loans [~~shall~~]may not be made for work which is performed before the applicant's loan application is approved and the loan is closed.

R311-212-8. Servicing the Loans.

(1) The director shall establish a repayment schedule for each loan based on the financial situation and income circumstances of the borrower and the term of loans allowed by Subsection 19-6-409(8)(b)(ii).

(2) Loans shall be amortized with equal payment amounts and payments shall be of such amount to pay interest and principal in full.

(a) the initial installment payment shall be due on a date established by the director.

(b) subsequent installment payments shall be due on the first day of each month.

(i) a notice of payment and due date shall be sent for each subsequent payment.

(c) non-receipt of the statement of account or notice of payment [~~shall~~]may not be a defense for non-payment or late payment.

(3) The director shall apply loan payments received first to penalty, next to interest, and then to principal.

(4) Loan payments may be made in advance, and the remaining principal balance of the loan may be paid in full at any time without penalty.

(5) Notices of late payment penalty assessed with amounts of penalty and the total payment due shall be sent to the borrower.

(6) The penalty for late loan payments shall be 10% of the payment due.

(a) the penalty shall be assessed and payable on payments received by the director more than five days after the due date.

(b) a penalty shall be assessed only once on a given late payment.

(7) Payments are considered received the day of the U.S. Postal Service postmark date or receipt date for payments delivered to the director by methods other than the U.S. Postal Service.

(8) If a loan payment check is returned due to insufficient funds, a service charge in the amount allowed by law shall be added to the payment amount due.

(9) Notice of loans paid in full shall be sent after penalties, interest, and principal have been paid.

(10) Releases of the director's interest in security shall be prepared and sent to the borrower or filed for public notice as applicable.

R311-212-9. Recovering on Defaulted Loans.

(1) Loans may be considered in default when:

(a) two consecutive payments are past due by 30 days or more;

(b) when the applicant's ability to receive payments for claims against the Fund lapses; or

(c) if the certificate of compliance lapses or is revoked.

(2) Lapsing under Subsection R311-206-7(5) will not be considered as grounds for default for [~~U~~]PSTs which are permanently closed.

(3) The director may declare the full amount of the defaulted loan, penalty, and interest immediately due.

(4) The director need not give notice of default before declaring the full amount due and payable.

(5) The borrower is liable for attorney's fees and collection costs for defaulted loans whether incurred before or after court action.

R311-212-10. Forms.

(1) The forms dated and listed in this section, on file with the Department, are incorporated by reference as part of Rule R311-212, and shall be used by the director for making loans.

(a) Loan Application version [~~7/14/16~~]7/31/25
(b) Balance Sheet version 7/29/14
(c) Loan Agreement version [~~7/29/14~~]7/31/25
(d) Corporate Authorization version 7/29/14
(e) Promissory Note version 7/29/14
(f) Extension and Modification of Promissory Note Agreement version 7/29/14
(g) Security Agreement version 7/29/14
(h) Hypothecation Agreement version 7/29/14
(i) General Pledge Agreement version 7/29/14
(j) Assignment version 7/29/14
(k) Assignment of Account version 7/29/14
(l) Trust Deed version [~~7/29/14~~]7/31/25
(m) Trust Deed Note version 7/29/14
(n) Extension and Modification of Trust Deed Note Agreement version 7/29/14

(2) The director may require or allow the use of other forms that are consistent with these rules as necessary for the loan approval process.

(3) The director may change these forms for administrative purposes provided the revised forms remain consistent with the substantive provisions of the adopted forms.

R311-212-11. Rules in Effect.

[~~(1)~~]The rules in effect on the closing date of the loan and the forms signed by the parties shall govern the parties.

KEY: hazardous substances, petroleum, underground storage tanks
Date of Last Change: [~~July 15, 2022~~]2025
Notice of Continuation: March 8, 2022
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-403; 19-6-409

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-260**	**Filing ID: 57492**

Agency Information

1. Title catchline:	Environmental Quality, Waste Management and Radiation Control, Waste Management	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, UT 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:
R315-260. Hazardous Waste Management System
4. Purpose of the new rule or reason for the change:
In July of 2024, the EPA finalized rulemaking that integrates e-Manifest with hazardous waste exports and other manifest related reports, PCB manifest amendments, and technical corrections. This rulemaking amended federal regulations found in 40 CFR 260 in response to vacatur of certain provisions of the definition of solid waste that became effective in 2018. The conforming

WASTE MANAGEMENT AND RADIATION CONTROL BOARD
Executive Summary
Five Year Review for Utah Administrative Code Rules R313-26, R315-15, 17, 101, 102, 103, 124, 260, 261, 262, 263, 264, 265, 266, 268, 270 and 273
November 13, 2025

What is the issue before the Board?	Utah Administrative Code Rules R313-26, R315-15, 17, 101, 102, 103, 124, 260, 261, 262, 263, 264, 265, 266, 268, 270 and 273 are due for a five-year review. If these rules are to continue, a Notice of Continuation (Five-Year Review) must be filed prior to the anniversary of the last five-year review. The anniversary date is January 14, 2026.
What is the historical background or context for this issue?	The Utah Administrative Rulemaking Act (Utah Code Annotated (UCA) 63G-3-305) requires state agencies to review each of their administrative rules within five years of the rule's original effective date or the last five-year review. The purpose of the review is to provide agencies with an opportunity to evaluate the rules to assess if the rules should be continued. In performing a five-year review, an agency may consider the need to amend or repeal rules that are archaic in form, are no longer used, are not based on existing statutory authority or are otherwise unnecessary. If an agency determines that a rule needs to be amended or repealed this is done in a separate action. To retain a rule as part of the Utah Administrative Code, a "Five-Year Notice of Review and Statement of Continuation" must be filed with the Office of Administrative Rules, before the rule's five-year anniversary date. The form provided by the Office of Administrative Rules requires the following information: 1. A list of the statutory provisions that authorize or require the rule and an explanation of those provisions; 2. A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule; and, 3. A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any. Completing the form provided by the Office of Administrative Rules and filing it before the five-year review date satisfies the provisions of the Administrative Rulemaking Act with respect to a five-year review. The completed forms for the rules listed above follow this Executive Summary.

What is the governing statutory or regulatory citation?	Utah Code Annotated (UCA) 63G-3-305 and Utah Code Annotated 19-1-301, 19-3-106.4, 19-6-105, 19-6-106, 19-6-704, 19-6-720, and 19-6-1003.
Is Board action required?	No. The Division is providing this information to keep the Board informed of Five-Year Reviews that have been conducted and are being submitted to the Office of Administrative Rules.
What is the Division Director's recommendation?	N/A
Where can more information be obtained?	Please contact Tom Ball by email at tball@utah.gov or by phone at 385-454-5574.

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R313-26**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R313-26. Generator Site Access Permit Requirements for Accessing Utah Radioactive Waste Disposal Facilities.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Subsection 19-3-106.4	This section also allows the board to make rules governing a generator site access permit program, prevents the transfer of radioactive waste to a commercial facility in the state without a permit, allows the director to grant generator site access permits, and allows the division to establish fees for generator site access permits.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments were received from any interested persons either supporting or opposing the rule during or since the last five-year review.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
R313-26 contains the requirements for the issuance of permits to radioactive waste generators, collectors and processors for transferring radioactive waste to a land disposal facility located within the State of Utah. Without this rule the radiation control program would not be qualified to maintain primacy from the federal government and therefore, this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R313. Environmental Quality, Waste Management and Radiation Control, Radiation.
R313-26. Generator Site Access Permit Requirements for Accessing Utah Radioactive Waste Disposal Facilities.
R313-26-1. Purpose and Authority.

(1) The purpose of this rule is to prescribe the requirements for the issuance of permits to generators for accessing a land disposal facility located within the State and requirements for shippers.

(2) The rules set forth herein are adopted pursuant to the provisions of Subsections 19-3-104(4) and 19-3-104(7).

(3) The requirements of Rule R313-26 are in addition to, and not in substitution for, other applicable requirements of these rules.

R313-26-2. Definitions.

As used in Rule R313-26, the following definitions apply:

"Disposal" means the isolation of wastes from the biosphere by placing them in a land disposal facility.

"Generator Site Access Permit" means an authorization to deliver radioactive wastes to a land disposal facility located within the State of Utah.

"Land disposal facility" has the same meaning as that given in Section R313-25-2.

"Manifest" means the document, as defined in Appendix G of 10 CFR 20.1001 to 20.2402 (2006),used for identifying the quantity, composition, origin, and destination of radioactive waste during its transport to a disposal facility.

"Packager" means Waste Processor, Waste Collector or Waste Generator as defined in Section R313-26-2.

"Radioactive waste" means any material that contains radioactivity or is radioactively contaminated and is intended for ultimate disposal at a licensed land disposal facility in Utah.

"Shipper" means the person who offers radioactive waste for transportation, typically consigning this type of waste to a land disposal facility.

"Waste Collector," "Waste Generator," and "Waste Processor" has the meaning as defined in Appendix G of 10 CFR 20.1001 to 20.2402 (2006).

R313-26-3. Generator Site Access Permits.

A Waste Generator, Waste Collector, or Waste Processor shall obtain a Generator Site Access Permit from the Director before transferring radioactive waste to a land disposal facility in Utah.

(1) Generator Site Access Permit applications shall be filed on a form prescribed by the Director.

(2) Applications shall be received by the Director at least 30 days prior to any shipments being delivered to a land disposal facility in Utah.

(3) Each Generator Site Access Permit application shall include a certification to the Director that the shipper shall comply with all applicable State or Federal laws, administrative rules and regulations, licenses, or license conditions of the land disposal facility regarding the packaging, transportation, storage, disposal and delivery of radioactive wastes.

(4) Generator Site Access Permit fees shall be assessed annually by the Director based on the following classifications:

(a) Waste Generators shipping more than 1000 cubic feet of radioactive waste annually to a land disposal facility in Utah.

(b) Waste Generators shipping 1000 cubic feet or less of radioactive waste annually to a land disposal facility in Utah.

(c) Waste Collectors or Waste Processors shipping radioactive waste to a land disposal facility in Utah.

(5) Generator Site Access Permits shall be valid for a maximum of one year from the date of issuance. The Director may modify individual Generator Site Access Permit terms and prorate the annual fees accordingly for administrative purposes.

(6) Generator Site Access Permits may be renewed by filing a new application with the Director. To ensure timely renewal, generators and brokers shall submit applications, for Generator Site Access Permit renewal, a minimum of 30 days prior to the expiration date of their Generator Site Access Permit.

(7) Generator Site Access Permit fees are not refundable.

(8) Transfer of a Generator Site Access Permit shall be approved by the Director.

(9) The number of Generator Site Access Permits required by each generator shall be determined by the following requirements:

(a) Generators who own multiple facilities within the same state may apply for one Generator Site Access Permit, provided the same contact person within the generator's company shall be responsible for responding to the Director for matters pertaining to the waste shipments.

(b) Facilities which are owned by the same generator and located in different states shall obtain separate Generator Site Access Permits.

(c) Persons who both generate and are either a Waste Processor or Waste Collector shall obtain separate Generator Site Access Permits.

R313-26-4. Shipper's Requirements.

(1) The shipper shall provide on demand the Director a copy of the Nuclear Regulatory Commission's "Uniform Low Level Radioactive Waste Manifest" for shipments consigned for disposal within Utah.

(2) The appropriate Generator Site Access Permit number(s) shall be documented on the manifest.

(3) Waste Generators, Waste Processors and Waste Collectors shall ensure that all Generator Site Access Permits are current prior to shipment of waste to a land disposal facility located in the state of Utah, and that the waste will arrive at the land disposal facility prior to the expiration date of the Generator Site Access Permits.

(4) A Waste Collector, Waste Processor or Waste Generator shall ensure all radioactive waste contained within a shipment for disposal at a land disposal facility in the state is traceable to the original generators and states, regardless of whether the waste is shipped directly from the point of generation to the disposal facility.

(5) The shipper shall ensure waste material is contained where no release of material can occur under conditions normally incident to transportation and shall utilize waste container(s)/package(s) where containment integrity has not been compromised.

R313-26-5. Land Disposal Facility Licensee Requirements.

The land disposal facility licensee shall ensure that Waste Generators, Waste Collectors and Waste Processors have a current, unencumbered Generator Site Access Permit prior to accepting a Waste Generator's, Waste Collector's or Waste Processor's waste.

R313-26-6. Enforcement.

Generator Site Access Permittees shall be subject to the provisions of Rule R313-14 for violations of federal regulations, state rules or requirements in the current land disposal facility operating license regarding radioactive waste packaging, transportation, labeling, notification, classification, marking, manifesting or description.

KEY: radioactive waste generator permit
Date of Enactment or Last Substantive Amendment: September 22, 2011
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-3-106.4

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-15**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-15. Standards for the Management of Used Oil.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-704	This section allows the Waste Management and Radiation Control Board to make rules as necessary to administer this part. It allows the board to authorize inspections and audits and establish standards for various types of used oil facilities. It also allows the board to hold hearings, require retention and submission of records and require audits of records and recordkeeping procedures.
Section 19-6-720	This section allows the division to solicit or request and receive gifts, grants, or donations that shall be appropriated to the division for the management of DIYer used oil.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments were received from any interested persons either supporting or opposing the rule during or since the last five-year review.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
R315-15 contains the standards for the management of used oil. In Section 19-6-702 the legislature found that millions of gallons of used oil are generated each year in Utah and that used oil is valuable resource that can be recycled. The legislature also found that significant quantiles of used oil a wastefully disposed of or improperly used in manners that cause pollution and endanger public health. Considering the harmful consequences that can result from the improper disposal and use of used oil, and its value as a resource, the collection, recycling, and reuse of used oil is in the public interest. This rule meets the intent of the Legislature that there be a program for the collection, recycling and reuse of used oil and therefore should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315-15-1. Applicability, Prohibitions, and Definitions.

1.1 APPLICABILITY

This section identifies those materials that are subject to regulation as used oil under R315-15. This section also identifies some materials that are not subject to regulation as used oil under R315-15, and indicates whether these materials may be a hazardous waste as defined under R315-261.

(a) Used oil. It is presumed that used oil is to be recycled unless a used oil handler disposes of used oil or sends used oil for disposal. Except as provided in R315-15-1.2, the requirements of R315-15 apply to used oil, and to materials identified in this section as being subject to regulation as used oil, whether or not the used oil or material exhibits any characteristics of hazardous waste identified in R315-261-20 through 24.

(b) Mixtures of used oil and hazardous waste.

(1) Listed hazardous waste.

(i) Mixtures of used oil and hazardous waste which are listed in R315-261-30 through 33 and 35 are subject to regulation as hazardous waste under R315-261 rather than as used oil under R315-15.

(ii) Rebuttable presumption for used oil. Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in R315-261-30 through 33 and 35. A person may rebut this presumption by demonstrating that the used oil does not contain hazardous waste, for example, by using an analytical method from SW-846, Edition III, Update IV to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in R315-261, Appendix VIII.

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in R315-15-2.5(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(2) Characteristic hazardous waste. A mixture of used oil and hazardous waste that solely exhibits one or more of the hazardous waste characteristics identified in R315-261-20 through 24 and a mixtures of used oil and hazardous waste that is listed in R315-261-30 through 33 and 35 solely because it exhibits one or more of the characteristics of hazardous waste identified in R315-261-20 through 24 are subject to:

(i) Except as provided in R315-15-1(b)(2)(iii), regulation as hazardous waste under R315-260 through 266, 268, 270, and 273 rather than as used oil under R315-15, if the resultant mixture exhibits any characteristics of hazardous waste identified in R315-261-20 through 24; or

(ii) Except as specified in R315-15-1.1(b)(2)(iii), regulation as used oil under R315-15, if the resultant mixture does not exhibit any characteristics of hazardous waste identified under R315-261-20 through 24.

(iii) Regulation as used oil under R315-15, if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability, e.g., mineral spirits, provided that the mixture does not exhibit the characteristic of ignitability under R315-261-21.

(3) Very small quantity generator hazardous waste. Mixtures of used oil and very small quantity generator hazardous waste regulated under Section R315-262-14 are subject to regulation as used oil under R315-15.

(c) Materials containing or otherwise contaminated with used oil.

(1) Except as provided in R315-15-1.1(c)(2) materials containing or otherwise contaminated with used oil from which the used oil has been properly drained or removed to the extent possible such that no visible signs of free-flowing oil remain in or on the material:

(i) Are not used oil and thus not subject to R315-15, and

(ii) If applicable, are subject to the hazardous waste regulations R315-260 through 266, 268, 270, and 273, and R315-101 and 102.

(2) Materials containing or otherwise contaminated with used oil that are burned for energy recovery are subject to regulation as used oil under R315-15.

(3) Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under R315-15.

(d) Mixtures of used oil with products.

(1) Except as provided in (d)(2) mixtures of used oil and fuels or other fuel products are subject to regulation as used oil under R315-15.

(2) Mixtures of used oil and diesel fuel mixed on site by the generator of the used oil for use in the generator's own vehicles are not subject to R315-15 after the used oil and diesel fuel have been mixed. Prior to mixing, the used oil is subject to the requirements of R315-15-2.

(e) Materials derived from used oil.

(1) Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal, e.g., re-refined lubricants, are:

(i) Not used oil and thus are not subject to R315-15, and

(ii) Not solid wastes and are thus not subject to the hazardous waste regulations of R315-260 through 266, 268, 270, and 273 as provided in R315-261-3(c)(2)(i).

(2) Materials produced from used oil that are burned for energy recovery, e.g., used oil fuels, are subject to regulation as used oil under R315-15.

(3) Except as provided in R315-15.1.1(e)(4), materials derived from used oil that are disposed of or used in a manner constituting disposal are:

(i) Not used oil and thus are not subject to R315-15, and

(ii) Are solid wastes and thus are subject to the hazardous waste regulations R315-260 through 266, 268, 270, and 273 if the materials are listed or identified as hazardous wastes.

(4) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to R315-15.

(f) Wastewater. Wastewater contaminated with de minimis quantities of used oil, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act, including wastewaters at facilities that have eliminated the discharge of wastewater, are not subject to the requirements of Rule R315-15. For purposes of this paragraph only, "de minimis" quantities of used oils are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception does not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases, or to used oil recovered from wastewaters.

(g) Used oil introduced into crude oil pipelines or a petroleum refining facility.

(1) Used oil mixed with crude oil or natural gas liquids, e.g., in a production separator or crude oil stock tank, for insertion into a crude oil pipeline is exempt from the requirements of R315-15. The used oil is subject to the requirements of R315-15 prior to the mixing of used oil with crude oil or natural gas liquids.

(2) Mixtures of used oil and crude oil or natural gas liquids containing less than 1% used oil that are being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking are exempt from the requirements of R315-15.

(3) Used oil that is inserted into the petroleum refining facility process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from the requirements of R315-15, provided that the used oil constitutes less than 1% of the crude oil feed to any petroleum refining facility process unit at any given time. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of R315-15.

(4) Except as provided in R315-15-1.1 (g)(5), used oil that is introduced into a petroleum refining facility process after crude distillation or catalytic cracking is exempt from the requirements of R315-15 only if the used oil meets the specification of R315-15-1.2. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of R315-15.

(5) Used oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility process is exempt from the requirements of R315-15. This exemption does not extend to used oil that is intentionally introduced into a hydrocarbon recovery system, e.g., by pouring collected used oil into the waste water treatment system.

(6) Tank bottoms from stock tanks containing exempt mixtures of used oil and crude oil or natural gas liquids are exempt from the requirements of R315-15.

(h) Used oil on vessels. Used oil produced on vessels from normal shipboard operations is not subject to Rule R315-15 until it is transported ashore.

(i) Used oil containing PCBs. In addition to the requirements of R315-15, marketers and burners of used oil who market used oil containing PCBs at concentrations greater than or equal to 2 ppm are subject to the requirements found in R315-15-18 and 40 CFR 761.20(e).

(j) Inspections. Any duly authorized employee of the Director, may, at any reasonable time and upon presentation of credentials, have access to and the right to copy any records relating to used oil, and inspect, audit, or sample. Any authorized employee obtaining samples shall give to the owner, operator or agent a receipt describing the sample obtained and, if requested, a portion of each sample of waste equal in volume or weight to the portion retained. The employee may also make record of the inspection by photographic, electronic, audio, video, or any other reasonable means.

(k) Violations, Orders, and Hearings. If the Director has reason to believe a person is in violation of any provision of R315-15, procedural requirements for compliance shall follow Utah Code Annotated 19-6-721 and Utah Administrative Code R305-7.

1.2 USED OIL SPECIFICATIONS

Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment, is subject to regulation under R315-15 until:

(a) It has been demonstrated not to exceed any allowable levels of the constituents and properties shown in Table 1;

(b) The person making that claim complies with R315-15-7.3, R315-15-7.4, and R315-15-7.5(b); and

(c) The used oil is delivered to a used oil burner.

TABLE 1
USED OIL NOT EXCEEDING ANY ALLOWABLE LEVEL IS NOT
SUBJECT TO R315-15-6 WHEN BURNED FOR ENERGY RECOVERY(1)

Constituent/property	Allowable level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash point	100 degrees F minimum
Total halogens	4,000 ppm maximum(2)

(1) The allowable levels in Table 1 do not apply to mixtures of used oil and hazardous waste that continue to beregulated as hazardous waste. See R315-15-1.1(b).

(2) Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption described in R315-15-1.1(b)(1). Such used oil is subject to R315-266-100 through 112, rather than R315-15 when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

Note: Applicable standards for the marketing and burning of used oil containing any quantifiable level (2 ppm) of PCBs are found in 40 CFR 761.20(e), 2013 edition, incorporated by reference, and R315-15-18. Prohibition of PCB oil dilution is described in 40 CFR 279.10 and 40 CFR 761.20(e).

1.3 PROHIBITIONS

Except as authorized by the Director, a person may not place, discard, or otherwise dispose of used oil in any of the following manners:

(a) Surface impoundment and waste piles. Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under R315-264 or R315-265.

(b) Use as a dust suppressant, weed suppressant, or for road oiling. The use of used oil as a dust suppressant, weed suppressant, or for road oiling or other similar use is prohibited. Any disposal of used oil on the ground is prohibited under Utah Code Annotated 19-6-706(1)(a)(iii).

(c) A person may not mix or commingle used oil with the following substances, except as incidental to the normal course of processing, mechanical, or industrial operations:

(1) Solid waste that is to be disposed of in any solid waste treatment, storage, or disposal facility, except as authorized by the Director; or

(2) Any hazardous waste so the resulting mixture may not be recycled or used for other beneficial purpose as authorized under R315-15.

(d) Used oil shall not be disposed in a solid waste treatment, storage, or disposal facility, except for the disposal of hazardous used oil as authorized under R315-261.

(e) Used oil shall not be disposed in sewers, drainage systems, septic tanks, surface or ground waters, watercourses, or any body of water.

1.4 BURNING IN PARTICULAR UNITS

Burning in particular units. Off-specification used oil fuel may be burned for energy recovery only in the devices described in R315-15-6.2(a).

1.5 DISPOSAL OF DE MINIMIS USED OIL

(a) R315-15-1.3 does not apply to release of de minimis quantities of used oil identified under Utah Code Annotated 19-6-706(4)(a) except for the requirements of 19-6-706(i) and (ii).

(b) A person may dispose of an item or substance that contains de minimis amounts of oil in disposal facilities in accordance with Utah Code Annotated 19-6-706 (2) (a) if:

(1) To the extent that all oil has been reasonably removed from the item or substance; and

(2) No free flowing oil remains in the item or substance.

1.6 USED OIL FILTERS

(a) Disposal of Used Oil Filters. A person may dispose of a nonterne plated used oil filter as a non-hazardous solid waste when that filter is gravity hot-drained by one of the methods described in R315-15-1.6(b) and is not mixed with hazardous waste defined in R315-261.

(b) "Gravity hot-drained" means drained for not less than 12 hours near operating temperature but above 60 degrees Fahrenheit. A nonterne used oil filter is a container of used oil and is subject to R315-15 until it is gravity hot-drained by one of the following methods:

(1) puncturing the filter anti-drain back valve or the filter dome end and gravity hot-draining;

(2) gravity hot-draining and crushing;

(3) dismantling and gravity hot-draining; or

(4) any other equivalent gravity hot-draining method authorized by the Director that will remove used oil from the filter at least as effectively as the methods listed in R315-15-1.6(b)(1) through (3).

1.7 DEFINITIONS

(a) Definitions of terms used in R315-15 are found in: R315-15-1.7(b) through (h) and R315-260.

(b) The term "de minimis quantities of used oil" defined in Utah Code Annotated 19-6-706(4)(b), and 19-6-708(3)(a) means small spills, leaks, or drippings from pumps, machinery, pipes, and other similar equipment during normal operations and does not apply to used oil discarded as a result of abnormal operations resulting in substantial leaks, spills, or other releases. Nor does it apply to accumulations of quantities of used oil that pose a potential threat to human health or the environment.

(c) "Financial responsibility" means the mechanism by which a person who has a financial obligation satisfies that obligation.

(d) "Used oil" means any oil, refined from crude oil or synthetic oil, that has been used and as a result of that use is contaminated by physical or chemical impurities. Used oil includes engine oil, transmission fluid, compressor oils, metalworking oils, hydraulic oil, brake fluid, oils used as buoyants, lubricating greases, electrical insulating, and dialectic oils.

(e) "Polychlorinated biphenyl (PCB)" means any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances which contains such substance.

(f) "On-specification used oil" means used oil that does not exceed levels of constituents and properties specified in R315-15-1.2.

(g) "Off-specification used oil" means used oil that exceeds levels of constituents and properties specified in R315-15-1.2.

(h) "Parts per million (ppm)" means a weight-per-weight ratio used to describe concentrations. Parts per million (ppm) is the number of units of mass of a contaminant per million units of total mass (e.g., micrograms per gram).

1.8 LABORATORY ANALYSES

Laboratory analyses used to satisfy the requirements of R315-15 shall be performed by a laboratory that holds a current Utah Certification for environmental laboratories issued by the Utah Department of Health, Laboratory Improvement under R444-14 Utah Administrative Code. The laboratory shall be certified for the method(s) and analyte(s) applied to generate the environmental data.

R315-15-2. Standards for Used Oil Generators.

2.1 APPLICABILITY

(a) General. Except as provided in paragraphs (a)(1) through (a)(4) of this section, R315-15-2 applies to all used oil generators. A used oil generator is any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

(1) Household "do-it-yourselfer" used oil generators. Household "do-it-yourselfer" used oil generators are not subject to regulation under R315-15, except for the prohibitions of R315-15-1.3 and cleanup requirements of R315-15-9.

(2) Vessels. Vessels at sea or at port are not subject to R315-15-2. For purposes of R315-15-2, used oil produced on vessels from normal shipboard operations is considered to be generated at the time it is transported ashore. The owner or operator of the vessel and the person(s) removing or accepting used oil from the vessel are co-generators of the used oil and are both responsible for managing the used oil in compliance with R315-15-2 once the used oil is transported ashore. The co-generators may decide among themselves which party will fulfill the requirements of R315-15-2.

(3) Diesel fuel. Mixtures of used oil and diesel fuel mixed by the generator of the used oil for use in the generator's own vehicles are not subject to R315-15 once the used oil and diesel fuel have been mixed. Prior to mixing, the used oil fuel is subject to the requirements of R315-15-2.

(4) Farmers. Farmers who generate an average of 25 gallons per month or less of used oil from vehicles or machinery used on the farm in a calendar year are not subject to the requirements of R315-15, except for the prohibitions of R315-15-1.3 and cleanup requirements of R315-15-9.

(b) Other applicable provisions. Used oil generators who conduct the following activities are subject to the requirements of other applicable provisions of R315-15 as indicated in R315-15.2.1(b)(1) through (5):

(1) Generators who transport used oil, except under the self-transport provisions of R315-15-2.5(a) and (b), shall also comply with R315-15-4.

(2)(i) Except as provided in R315-15-2.1(b)(2)(ii), generators who process or re-refine used oil must also comply with R315-15-5.

(ii) Generators who perform the following activities are not processors, provided that the used oil is generated onsite and is not being sent offsite to a burner of on- or off-specification used oil fuel.

(A) Filtering, cleaning, or otherwise reconditioning used oil before returning it for reuse by the generator;

(B) Separating used oil from wastewater generated onsite to make the wastewater acceptable for discharge or reuse in accordance with section 402 or section 307(b) of the Clean Water Act or other applicable Federal or state regulations governing the management or discharge of wastewater;

(C) Using oil mist collectors to remove small droplets of used oil from in-plant air to make plant air suitable for continued recirculation;

(D) Draining or otherwise removing used oil from materials containing or otherwise contaminated with used oil in order to remove excessive used oil to the extent possible in accordance with R315-15-1.1(c); or

(E) Filtering, separating or otherwise reconditioning used oil before burning it in a space heater in accordance with R315-15-2.4.

(3) Generators who burn off-specification used oil for energy recovery, shall also comply with R315-15-6.

(4) Generators who direct shipments of off-specification used oil from their facility to a used oil burner or first certify that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in R315-15-1.2 shall also comply with R315-15-7.

(5) Generators who dispose of used oil shall also comply with R315-15-8.

2.2 HAZARDOUS WASTE MIXING

(a) Mixtures of used oil and hazardous waste shall be managed in accordance with R315-15-1.1(b).

(b) The rebuttable presumption for used oil found in R315-15-1.1(b)(1)(ii) applies to used oil managed by generators. Under this rebuttable presumption, used oil containing greater than 1,000 ppm total halogens is presumed to be a hazardous waste and thus shall be managed as hazardous waste and not as used oil unless the presumption is rebutted. However, the rebuttable presumption does not apply to certain metalworking oil or fluids containing chlorinated paraffins, if they are processed through a tolling agreement to reclaim the metalworking oils or fluids, and certain used oils removed from refrigeration units described in R315-15-1.1(b)(1)(ii)(B).

2.3 USED OIL STORAGE

Used oil generators are subject to all applicable Spill Prevention, Control and Countermeasures, 40 CFR 112, in addition to the requirements of R315-15-2. Used oil generators are also subject to the standards and requirements of R311-200 through R311-209, Underground Storage Tanks, for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste. In addition, used oil generators are subject to the requirements of R315-15-2.

(a) Storage units. Used oil generators shall not store used oil in units other than tanks, containers, or units subject to regulation under R315-264 and R315-265.

(b) Condition of units. Containers and aboveground tanks used to store used oil at generator facilities shall be:

(1) In good condition, with no severe rusting, apparent structural defects or deterioration; and

(2) Not leaking.

(3) Tanks and containers for storage of used oil must be closed during storage except when adding or removing used oil.

(4) Tanks and containers storage areas shall be managed to prevent releases of used oil to the environment.

(c) Labels.

(1) Containers and aboveground tanks used to store used oil at generator facilities shall be labeled or marked clearly with the words "Used Oil".

(2) Fill pipes used to transfer used oil into underground storage tanks at generator facilities shall be labeled or marked clearly with the words "Used Oil."

(d) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of Section R311-202-1, which incorporates by reference 40 CFR 280, Subpart F, a generator shall comply with Section R315-15-9.

2.4 ON-SITE BURNING

On-site burners shall comply with R315-15-6 and, if applicable, shall obtain an Air Quality permit.

(a) Generators may burn used oil in used oil-fired space heaters without a used oil permit provided that:

(1) The heater burns only used oil that the owner or operator generates;

(2) The heater is designed to have a maximum capacity of not more than 0.5 million Btu per hour;

(3) The combustion gases from the heater are vented to the outside ambient air;

(4) The generator has knowledge that the used oil has not been mixed with hazardous waste; and

(5) The used oil is being legitimately burned to utilize its energy content.

(b) Used Oil Collection Center(UOCC). If it is registered as a Used Oil Collection Center as authorized in R315-15-3, the UOCC may burn used oil in used oil fired space heaters without a used oil permit under the provision described in R315-15-2.4(a) provided that the used oil is received from household do-it-yourselfer generators or farmers described in R315-15-2.1(a)(4) or the used oil is received from other generators and has been certified to meet the used oil fuel specifications of R315-15-1.2 by a registered used oil marketer in accordance with R315-15-7.

2.5 OFF-SITE SHIPMENTS

Except as provided in R315-15-2.5(a) through (c), a generator shall ensure that its used oil is transported only by a transporter who has obtained a Utah used oil transporter permit and has a current used oil handler certificate issued by the Director and an EPA identification number.

(a) Self-transportation of small amounts to approved collection centers. A generators may transport, without an EPA identification number, a used oil transporter permit, or a current used oil handler certificate, used oil that is generated at the generator's site and used oil collected from household do-it-yourselfers to a used oil collection center provided that:

(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(2) The generator transports no more than 55 gallons of used oil at any time; and

(3) The generator transports the used oil to a used oil collection center that is registered or permitted to manage used oil.

(b) Self-transportation of small amounts to aggregation points owned by the generator. A generator may transport, without an EPA identification number, a used oil transporter permit, or used oil handler certificate, used oil that is generated at the generator's site to an aggregation point provided that:

(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(2) The generator transports no more than 55 gallons of used oil at any time; and

(3) The generator transports the used oil to an aggregation point that is owned, operated, or both by the same generator.

(c) Tolling arrangements. Used oil generators may arrange for used oil to be transported by a transporter without an EPA identification number, a used oil transporter permit, or a current used oil handler certificate if the used oil is reclaimed under a contractual agreement under which reclaimed oil is returned by the processor/re-refiner to the generator for use as a lubricant, cutting oil, or coolant. The contract, known as a "tolling arrangement," shall indicate:

(1) The type of used oil and the frequency of shipments;

(2) That the vehicle used to transport the used oil to the processing/re-refining facility and to deliver recycled used oil back to the generator is owned and operated by the used oil processor/re-refiner; and

(3) That reclaimed oil will be returned to the generator.

R315-15-3. Standards for Used Oil Collection Centers and Aggregation Points.

3.1 DO-IT-YOURSELFER USED OIL COLLECTION CENTERS TYPES A and B

(a) Applicability. R315-15-3.1 applies to owners or operators of Type A and B used oil collection centers:

(1) Type A used oil collection center. Type A and B is any site or facility that accepts/aggregates and stores used oil collected only from household do-it-yourselfers (DIYers) in quantities not exceeding five gallons per visit.

(2) Type B used oil collection center. Type B used oil collection center is any site or facility that accepts/aggregates and stores used oil collected from farmers as required by R315-15-2.1(a)(4) in quantities not exceeding 55 gallons per visit from farmers and not exceeding five gallons per visit from household do-it-yourselfers.

(b) Type A or B used oil collection center requirements. Owners or operators of Type A or B used oil collection centers shall:

(1) Comply with the generator standards in R315-15-2.

(2) Be registered with the Division of Waste Management and Radiation Control to manage used oil as a used oil collection center as required by R315-15-13.1; and

(3) Keep records of used oil collected by the collection center. This does not include used oil generated on site from maintenance and servicing operations. These records shall be kept for a minimum of three years and shall contain the following information:

(i) Name and address of generator or if unavailable, a written description of how the used oil was received;

(ii) Quantity of used oil received;

(iii) Date the used oil is received; and

(iv) Volume of used oil picked up by a permitted transporter and the transporter's name and EPA identification number.

(4) A Type A or B used oil collection center shall not accept used oil from generators other than those specified in R315-15-3.1(1) and (2).

(c) Reimbursements. Type A or B used oil collection centers are classified as DIYer used oil collection centers and may be reimbursed as described in R315-15-14.

3.2 USED OIL COLLECTION CENTERS - TYPES C AND D

(a) Applicability. R315-15-3.2 applies to owners or operators of Type C and D used oil collection centers.

(1) Type C used oil collection center is any site or facility that accepts/aggregates and stores used oil collected from used oil generators regulated under R315-15-2 who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of R315-15-2.5(a). Type C used oil collection centers may also accept used oil from household do-it-yourselfers and farmers described in R315-15-2.1(a)(4).

(2) A Type D used oil collection center is any site or facility that only accepts/aggregates and stores used oil collected from used oil generators regulated under R315-15-2 who bring used oil to the collection center in shipments of no more than 55 gallons under the provisions of R315-15-2.5(a). Type D used oil collection centers do not qualify for reimbursement.

(b) Used oil collection center Type C and D requirements. Owners or operators of Types C and D used oil collection centers shall:

(1) Comply with the generator standards in R315-15-2;

(2) Be registered with the Division of Waste Management and Radiation Control to manage used oil; and

(3) Keep records of used oil received from off-site sources and transported from the collection center. This does not include used oil generated onsite from maintenance and servicing operations. These records shall be kept for a minimum of three years and shall contain the following information:

(i) Name and address of generator or, if unavailable, a written description of how the used oil was received;

(ii) Quantity of used oil received;

(iii) Date the used oil is received; and

(iv) Volumes of used oil collected by a permitted transporter and the transporter's name and federal EPA identification number.

(c) Reimbursements. Type C used oil collection centers may be reimbursed as described in R315-15-14 for household do-it-yourselfer and used oil generated by farmers as defined in R315-15-3.1. Other generator used oil does not meet the reimbursement criteria as do-it-yourselfer used oil and does not qualify for reimbursement.

3.3 USED OIL AGGREGATION POINTS OWNED BY THE GENERATOR

(a) Applicability. R315-15-3.3 applies to owners or operators of all used oil aggregation points. A used oil aggregation point is any site or facility that accepts, aggregates, or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of 55 gallons or less under the provisions of R315-15-2.5(b). Used oil aggregation points may also accept used oil from household do-it-yourselfers as long as they register as do-it-yourselfer collection centers, as described in R315-15-13.1, and comply with do-it-yourselfer collection center standards in R315-15-3.1. Used oil aggregation points that accept used oil from other generators shall register as collection centers, as described in R315-15-13.2, and comply with collection center standards in R315-15-3.2.

(b) Used oil aggregation point requirements. Owners or operators of all used oil aggregation points shall comply with the generator standards in R315-15-2.

R315-15-4. Standards for Used Oil Transporter and Transfer Facilities.

4.1 APPLICABILITY

(a) General. R315-15-4 applies to all used oil transporters, except as provided in R315-15-4.1(a)(1) through (4). Persons who transport used oil, persons who collect used oil from more than one generator and transport the collected used oil, and owners and operators of used oil transfer facilities are used oil transporters. Except as provided by R315-15-13.4(f), used oil transporters or operators of used oil transfer facilities shall obtain a permit from the Director prior to accepting any used oil for transportation or transfer. The application for a permit shall include the information required by R315-15-13.4. Used oil transporters and operators of used oil transfer facilities shall obtain and maintain a used oil handler certificate in accordance with R315-15-13.8.

(1) R315-15-4 does not apply to on-site transportation.

(2) R315-15-4 does not apply to generators who transport shipments of used oil totaling 55 gallons or less from the generator to a used oil collection center as specified in Subsection R315-15-2.5(a).

(3) R315-15-4 does not apply to generators who transport shipments of used oil totaling 55 gallons or less from the generator to a used oil aggregation point owned or operated by the same generator as specified in R315-15-2.5(b).

(4) R315-15-4 does not apply to transportation of used oil from household do-it-yourselfers to a regulated used oil generator, collection center, aggregation point, processor/re-refiner, or burner subject to the requirements of R315-15. Except as provided in R315-15-4.1(a)(1) through (a)(3), R315-15-4 does, apply to transportation of collected household do-it-yourselfer used oil from regulated used oil generators, collection centers, aggregation points, or other facilities where household do-it-yourselfer used oil is collected.

(b) Imports and exports. Transporters are subject to the requirements of R315-15-4 from the time the used oil enters and until the time it exits Utah.

(c) Vehicles used to transport hazardous waste. Unless vehicles previously used to transport hazardous waste are emptied as described in R315-261-7 prior to transporting used oil, the used oil is considered to have been mixed with the hazardous waste and shall be managed as hazardous waste unless, under the provisions of R315-15-1.1(b), the hazardous waste/used oil mixture is determined not to be hazardous waste.

(d) Vehicles used to transport PCB-contaminated material. Unless vehicles previously used to transport PCB-contaminated material are decontaminated as described in 40 CFR 761 Subpart S, (2013 edition, incorporated by reference), prior to transporting used oil, the used oil is considered to have been mixed with PCB-contaminated material and shall be managed as PCB-contaminated material in accordance with R315-15-18 and 40 CFR 761.

(e) Tanks, containers, and piping that contained PCB-contaminated material. Unless tanks, containers, and piping that previously contained PCB-contaminated material are decontaminated as described in 40 CFR 761 Subpart S prior to transferring used oil, the used oil is considered to have been mixed with PCB-contaminated material in accordance with R315-15-18 and 40 CFR 761 Subpart S.

(f) Other applicable provisions. Used oil transporters who conduct the following activities are also subject to other applicable provisions of R315-15 as indicated in R315-15-4.1 (f)(1) through (5):

(1) Transporters who generate used oil shall also comply with R315-15-2;

(2) Transporters who process or re-refine used oil, except as provided in R315-15-4.2, shall also comply with R315-15-5;

(3) Transporters who burn off-specification used oil for energy recovery shall also comply with R315-15-6;

(4) Transporters who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in R315-15-1.2 shall also comply with R315-15-7; and

(5) Transporters who dispose of used oil shall also comply with R315-15-8.

4.2 RESTRICTIONS ON TRANSPORTERS WHO ARE NOT ALSO PROCESSORS OR RE-REFINERS

(a) Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation. However, except as provided in R315-15-4.2(b), used oil transporters may not process used oil unless they also comply with the requirements for processors/re-refiners in R315-15-5.

(b) Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation, e.g., settling and water separation, but that are not designed to produce, or make more amenable for production of, used oil derived products unless they also comply with the processor/re-refiner requirements in R315-15-5.

(c) Transporters of used oil that is removed from oil-bearing electrical transformers and turbines and filtered by the transporter or at a transfer facility prior to being returned to its original use are not subject to the processor/re-refiner requirements in R315-15-5.

4.3 NOTIFICATION

(a) Identification numbers. Used oil transporters who have not previously complied with the notification requirements of RCRA section 3010 shall comply with these requirements and obtain an EPA identification number.

(b) Mechanics of notification. A used oil transporter who has not received an EPA identification number may obtain one by notifying the Director of his used oil activity by submitting either:

(1) A completed EPA Form 8700-12 or

(2) A letter to the Division requesting an EPA identification number. The letter shall include the following information:

(i) Transporter company name;

(ii) Owner of the transporter company;

(iii) Mailing address for the transporter;

(iv) Name and telephone number for the transporter point of contact;

(v) Type of transport activity, i.e., transport only, transport and transfer facility, transfer facility only;

(vi) Location of all transfer facilities at which used oil is stored; and

(vii) Name and telephone number for a contact at each transfer facility.

4.4 USED OIL TRANSPORTATION

(a) Deliveries. A used oil transporter shall deliver all used oil received to:

(1) Another used oil transporter, provided that the transporter has obtained an EPA identification number, transporter permit number, and current used oil handler certificate issued by the Director;

(2) A used oil processing/re-refining facility that has obtained an EPA identification number, processing/refining permit, and current used oil handler certificate issued by the Director;

(3) An off-specification used oil burner facility that has obtained an EPA identification number, off-specification used oil burner permit, and current used oil handler certificate issued by the Director;

(4) A used oil transfer facility that has obtained an EPA identification number, transfer facility permit, and current used oil handler certificate issued by the Director; or

(5) An on-specification used oil burner facility.

(b) DOT Requirements. Used oil transporters shall comply with all applicable requirements under the U.S. Department of Transportation regulations in 49 CFR 171 through 180. Persons transporting used oil that meets the definition of a hazardous material in 49 CFR 171.8 shall comply with all applicable regulations in 49 CFR 171 through 180.

(c) Used oil discharges. In the event of a used oil discharge, a transporter shall comply with R315-15-9.

(d) The words "Used Oil" shall be clearly visible, in letters at least two inches high, on all vehicles transporting bulk used oil.

4.5 REBUTTABLE PRESUMPTION FOR USED OIL

(a) To ensure that used oil is not a hazardous waste under the rebuttable presumption of R315-15-1.1(b)(1)(ii), the used oil transporter shall determine whether the total halogen content of used oil being transported or stored at a transfer facility is below 1,000 ppm.

(b) The transporter shall make this determination by:

(1) Testing the used oil; or

(2) Applying and documenting generator knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in R315-261-30 through 33 and 35. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste, for example, by using an analytical method from SW-846, Edition III, update IV to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in R315-261 Appendix VIII.

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in R315-15-2.5(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units if the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) Record retention. Records of analyses conducted or information used to comply with R315-15-4.5(a), (b), and (c) shall be maintained by the transporter for at least three years.

4.6 USED OIL STORAGE AT TRANSFER FACILITIES

Used oil transporters are subject to all applicable Spill Prevention, Control and Countermeasures, in accordance with 40 CFR 112, in addition to the requirements of R315-15-4. Used oil transporters are also subject to the standards of R311, which incorporates by reference 40 CFR 280, for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of R315-15-4.

(a) Applicability. R315-15-4 applies to used oil transfer facilities. Used oil transfer facilities are transportation-related facilities including loading docks, parking areas, storage areas, and other areas where shipments of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to the processor/re-refiner requirements found in R315-15-5.

(b) Storage units. Owners or operators of used oil transfer facilities may not store used oil in units other than tanks, containers, or units subject to regulation under R315-264 or R315-265.

(c) Condition of units. Containers and aboveground tanks and tank systems, including their associated pipes and valves, used to store used oil at transfer facilities shall be:

(1) In good condition, with no severe rusting, apparent structural defects, or deterioration; and

(2) Not leaking.

(3) Tanks and containers for storage of used oil must be closed during storage except when adding or removing used oil.

(4) Tanks and container storage areas shall have a containment system that is designed and operated in accordance with R315-264-170 through 178.

(d) Secondary containment. Containers and aboveground tanks used to store used oil at transfer facilities, including their pipe connections and valves, shall be equipped with a secondary containment system.

(1) The secondary containment system shall consist of:

(i) Dikes, berms, or retaining walls; and

(ii) A floor. The floor shall cover the entire area within the dikes, berms, or retaining walls except areas where existing portions of existing aboveground tanks meet the ground.

(iii) An equivalent secondary containment system approved by the Director.

(2) The entire containment system, including walls and floors, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(3) The secondary system shall be of sufficient extent to prevent any used oil releases from tanks and containers in R315-15-4.6(b), from migrating out of the system to the soil, groundwater, or surface water.

(4) Water, used oil, or other liquids shall be removed from secondary containment, including sumps, within 24 hours of discovery.

(5) Used oil shall not be stored or allowed to accumulate in sumps and similar water containment structures at the facility. Any used oil in such sumps beyond a surface sheen shall be removed within 24 hours of discovery.

(6) Transporters loading to or from rail tanker cars shall also comply with secondary containment requirements of R315-15-4.10.

(e) Labels.

(1) Containers and aboveground tanks used to store used oil at transfer facilities shall be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at transfer facilities shall be labeled or marked clearly with the words "Used Oil."

(f) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of R311-202-1, which incorporates by reference 40 CFR 280, Subpart F, the owner/operator of a transfer facility shall comply with R315-15-9.

4.7 TRACKING

(a) Acceptance. Used oil transporters and transfer facilities shall keep a written record of each used oil shipment accepted for transport. These records shall take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Written records for each shipment shall include:

(1) The name and address of the generator, transporter, transfer facility, burner, or processor/re-refiner who provided the used oil for transport;

(2) The EPA identification number, if applicable, of the generator, transporter, or processor/re-refiner who provided the used oil for transport;

(3) Documentation demonstrating the transporter has met the halogen determination requirements of R315-15-4.5 and, where applicable, the PCB testing requirements of R315-15-18;

(4) The quantity of used oil accepted;

(5) The date of acceptance; and

(6)(i) Except as provided in R315-15-4.7(a)(6)(ii), the signature, dated upon receipt of the used oil, of a representative of the generator, transporter, transfer facility, burner, or processor/re-refiner who provided the used oil for transport.

(ii) Intermediate rail transporters are not required to sign the record of acceptance.

(b) Deliveries. Used oil transporters and transfer facilities shall keep a written record of each shipment of used oil that is delivered to another used oil transporter, a transfer facility, burner, processor/re-refiner, or disposal facility. Records of each delivery shall include:

(1) The name and address of the receiving facility or transporter;

(2) The EPA identification number of the receiving facility or transporter;

(3) The quantity of used oil delivered;

(4) The date of delivery; and

(5)(i) Except as provided in R315-15-4.7(a)(6)(ii), the signature, dated upon receipt of the used oil, of a representative of the receiving facility or transporter.

(ii) Intermediate rail transporters are not required to sign the record of delivery.

(c) Exports of used oil. Used oil transporters shall maintain the records described in R315-15-4.7(b)(1) through (b)(4) for each shipment of used oil exported outside of Utah.

(d) Record retention. The records described in R315-15-4.7(a), (b), and (c) shall be maintained for at least three years at a specified facility approved by the Director.

(e) Reporting. Used oil transporter and transfer facilities shall report annually by March 1 to the Director. The report shall be consistent with the requirements of R315-15-13.4(d).

4.8 MANAGEMENT OF RESIDUES

Transporters who generate residues from the storage or transport of used oil shall manage the residues as specified in R315-15-1.1(e).

4.9 ACCEPTANCE OF OFF-SITE USED OIL

Used oil transporters and transfer facilities accepting used oil from off-site shall ensure that the transporters delivering the used oil have obtained a current used oil transporter permit and an EPA identification number.

4.10 TRANSFER OF USED OIL TO OR FROM RAIL CARS

(a) Spill prevention. Facilities or transporters loading or unloading used oil from rail cars shall:

(1) Use spill pans beneath rail cars being loaded or unloaded with used oil. These spill pans shall be placed inside and outside of the track below the rail car loading port in such a way as to capture releases that might occur during the loading and unloading operations;

(2) Securely park used oil transportation trucks on a loading pad during the loading and unloading of used oil between those trucks and the rail tanker car. The loading pad shall be constructed of asphalt or concrete, or an equivalent system approved by the Director, and shall be sloped or bermed in such a way as to contain used oil spills;

(3) Be loaded and unloaded through a valve or port located on top of the rail car unless otherwise approved by the Director; and

(4) Transporter personnel shall actively monitor the transfer during the entire loading and unloading process.

(b) Storage at rail loading and unloading facilities. If, during the normal course of transportation, used oil remains at the loading and unloading facility for more than 24 hours but less than 35 days, the facility is subject to regulation as a used oil transfer facility as defined in R315-15-4.6 and is required to apply for a permit as a used oil transfer facility as defined in R315-15-13.4. A transfer facility that stores used oil for more than 35 days is subject to the processor/re-refiner requirements as defined in R315-15-5.

R315-15-5. Standards for Used Oil Processors and Re-Refiners.

5.1 APPLICABILITY

(a) The requirements of Section R315-15-5 apply to owners and operators of facilities that process used oil. Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived products. Processing includes blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation, and re-refining. The requirements of Section R315-15-5 do not apply to:

(1) transporters that conduct incidental processing operations that occur during the normal course of transportation as provided in Section R315-15-4.2; or

(2) burners that conduct incidental processing operations that occur during the normal course of used oil management before burning as provided in Subsection R315-15-6.2(b).

(b) Other applicable provisions. Used oil processors or re-refiners who conduct the activities in Subsections R315-15-5.1(b)(1) through R315-15-5.1(b)(7) are also subject to applicable requirements of Rule R315-15 as indicated in Subsections R315-15-5.1(b)(1) through R315-15-5.1(b)(7).

(1) Processors or re-refiners who generate used oil shall also comply with Section R315-15-2.

(2) Processors or re-refiners who transport used oil shall also comply with Section R315-15-4.

(3) Processor or re-refiners who burn off-specification used oil for energy recovery shall also comply with Section R315-15-6 except where:

(i) the used oil is only burned in an on-site space heater that meets the requirements of Section R315-15-2.4; or

(ii) the used oil is only burned for purposes of processing used oil, which is considered burning incidentally to used oil processing.

(4) Processors or re-refiners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in Section R315-15-1.2 shall also comply with Section R315-15-7.

(5) Processors or re-refiners who dispose of used oil shall also comply with Section R315-15-8.

(6) Tanks, containers, and piping that contained hazardous waste. Unless tanks, containers, and piping that previously contained hazardous waste are emptied as described in Section R315-261-7 before storing or transferring used oil, the used oil is considered to have been mixed with the hazardous waste and shall be managed as hazardous waste unless, under Subsection R315-15-1.1(b), the hazardous waste and used oil mixture is determined not to be hazardous waste.

(7) Tanks, containers, and piping that previously contained PCB-contaminated material. Unless tanks, containers, and piping that previously contained PCB-contaminated material are decontaminated as described in 40 CFR 761 Subpart S before storing or transferring of used oil, the used oil is considered to have been mixed with the PCB-contaminated material and shall be managed in accordance with Section R315-15-18 and 40 CFR 761 Subpart S, as applicable.

(c) Processors or re-refiners shall get a permit from the director before processing or re-refining used oil. An application for a permit shall contain the information required by Section R315-15-13.5.

5.2 NOTIFICATION

(a) Identification numbers. Used oil processors or re-refiners who have not previously complied with the notification requirements of RCRA Section 3010 shall comply with these requirements and get an EPA identification number.

(b) Mechanics of notification. A used oil processor or re-refiner who has not received an EPA identification number may get one by notifying the director of their used oil activity by submitting either:

(1) a completed EPA Form 8700-12; or

(2) a letter to the Division requesting an EPA identification number. The letter shall include the information listed in Subsections R315-15-5.2(b)(2)(i) through R315-15-5.2(b)(2)(vi):

(i) processor or re-refiner company name;

(ii) owner of the processor or re-refiner company;

(iii) mailing address for the processor or re-refiner;

(iv) name and telephone number for the processor or re-refiner point of contact;

(v) type of used oil activity, such as, process only, process and re-refine; and

(vi) location of the processor or re-refiner facility.

5.3 GENERAL FACILITY STANDARDS

(a) Preparedness and prevention. Owners and operators of used oil processing or re-refining facilities shall comply with the requirements or Subsections R315-15-5.3(a)(1) through R315-15-5.3(a)(6):

(1) Maintenance and operation of facility. Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of used oil to air, soil, surface water, or groundwater that could threaten human health or the environment.

(2) Required equipment. Each facility shall be equipped with:

(i) an internal communications or alarm system capable of providing immediate emergency instruction, voice, and signal, to facility personnel;

(ii) a device, such as a telephone, immediately available at the scene of operations, or a handheld two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

(iii) portable fire extinguishers, fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals, spill control equipment, and decontamination equipment; and

(iv) water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(3) Testing and maintenance of equipment. Facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency. Records of testing and maintenance shall be kept for three years.

(4) Access to communications or alarm system.

(i) When used oil is being poured, mixed, spread, or otherwise handled, personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless a device is not required in Subsection R315-15-5.3(a)(2).

(ii) If there is ever just one employee on the premises while the facility is operating, the employee shall have immediate access to a device, such as a telephone, immediately available at the scene of operation, or a handheld two-way radio, capable of summoning external emergency assistance, unless a device is not required in Subsection R315-15-5.3(a)(2).

(5) Required aisle space. The owner or operator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(6) Arrangements with local authorities.

(i) The owner or operator shall try to make the arrangements listed in Subsections R315-15-5.3(a)(6)(i)(A) through R315-15-5.3(a)(6)(i)(D), as appropriate for the type of used oil handled at the facility and the potential need for the services of these organizations:

(A) arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of used oil handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(B) where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(C) agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

(D) arrangements to familiarize local hospitals with the properties of used oil handled at the facility and the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

(ii) Where state or local authorities decline to enter into these arrangements, the owner or operator shall document the refusal in the facility's operating record.

(b) Contingency plan and emergency procedures. Owners and operators of used oil processing and re-refining facilities shall comply with the requirements in Subsections R315-15-5.3(b)(1) through R315-15-5.3(b)(6):

(1) Purpose and implementation of contingency plan.

(i) Each owner or operator shall have a contingency plan for the facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, groundwater, or surface water.

(ii) The plan shall be carried out immediately if there is a fire, explosion, or release of used oil that could threaten human health or the environment.

(2) Content of contingency plan.

(i) The contingency plan shall describe the actions facility personnel shall take to comply with Subsections R315-15-5.3(b)(1) and R315-15-5.3(b)(6) in response to fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, groundwater, or surface water at the facility.

(ii) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112 or another emergency or contingency plan, the owner or operator need only amend that plan to incorporate used oil management provisions necessary to comply with the requirements of Rule R315-15.

(iii) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services, in accordance with Subsection R315-15-5.3(a)(6).

(iv) The plan shall list names, addresses, and phone numbers, of each person qualified to act as 24-hour emergency coordinator. This list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order that they will assume responsibility as alternates. See also Subsection R315-15-5.3(b)(5).

(v) The plan shall include a list of each piece of emergency equipment at the facility, such as fire extinguishing systems, spill control equipment, communications and alarm systems, internal and external, and decontamination equipment, where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(vi) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by releases of used oil or fires.

(3) Copies of contingency plan. A copy of the contingency plan and any revisions to the plan shall be:

(i) maintained at the facility; and

(ii) submitted to any local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

(4) Amendment of contingency plan. The contingency plan shall be reviewed, and immediately amended, if necessary, when:

(i) applicable rules are revised;

(ii) the plan fails in an emergency;

(iii) the facility changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of used oil, or changes the response necessary in an emergency;

(iv) the list of emergency coordinators changes; or

(v) the list of emergency equipment changes.

(5) Emergency coordinator. At any time, there shall be at least one employee either on the facility premises or on call, meaning available to respond to an emergency by reaching the facility within a short period, with the responsibility for coordinating emergency response measures. This emergency coordinator shall be thoroughly familiar with each aspect of the facility's contingency plan, each operation and activity at the facility, the location and characteristic of used oil handled, the location of any records within the facility, and facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

(6) Emergency procedures.

(i) When there is an imminent or actual emergency situation, the emergency coordinator, or the designee when the emergency coordinator is on call, shall immediately:

(A) activate internal facility alarms or communication systems, where applicable, to notify facility personnel; and

(B) notify appropriate state or local agencies with designated response roles if their help is needed.

(ii) When there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analyses.

(iii) Concurrently, the emergency coordinator shall assess possible hazards to human health and to the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, such as, the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions.

(iv) If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health, or the environment, outside the facility, the coordinator shall report the findings as follows:

(A) if the emergency coordinator assessment indicates that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities. The coordinator shall be available to help appropriate officials decide whether local areas should be evacuated; and

(B) the emergency coordinator shall implement the actions as required in Section R315-15-9.

(v) During an emergency, the emergency coordinator shall take any reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other used oil or hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operation, collecting and containing released used oil, and removing or isolating containers.

(vi) If the facility stops operation in response to a fire, explosion, or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(vii) Immediately after an emergency, the emergency coordinator shall provide for recycling, storing, or disposing of recovered used oil, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(viii) The emergency coordinator shall ensure that, in the affected areas of the facility:

(A) No waste or used oil that may be incompatible with the released material is recycled, treated, stored, or disposed of until cleanup procedures are completed.

(B) Emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(C) The owner or operator shall notify the director, and appropriate local authorities that the facility is in compliance with Subsections R315-15-5.3(b)(6)(viii)(A) and R315-15-5.3(b)(6)(viii)(B) before operations are resumed in the affected areas of the facility.

(ix) The owner or operator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the owner or operator shall submit a written report on the incident to the director. The report shall include:

(A) name, address, and telephone number of the owner or operator;

(B) name, address, and telephone number of the facility;

(C) date, time, and type of incident, such as, fire, explosion;

(D) name and quantity of materials involved;

(E) the extent of injuries, if any;

(F) an assessment of actual or potential hazards to human health or the environment, where this applies; and

(G) estimated quantity and disposition of recovered material that resulted from the incident.

5.4 REBUTTABLE PRESUMPTION FOR USED OIL

(a) To ensure that used oil managed at a processing or re-refining facility is not hazardous waste under the rebuttable presumption of Subsection R315-15-1.1(b)(1)(ii), the owner or operator of a used oil processing or re-refining facility shall determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The owner or operator shall make this determination by:

(1) testing the used oil; or

(2) applying and documenting generator knowledge of the halogen content of the used oil in light of the materials and processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in Sections R315-261-30 through R315-261-33 and R315-261-35. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste, for example, by using an analytical method from EPA SW-846, Edition III, Update IV to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Rule R315-261 Appendix VIII.

(1) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils or fluids. The presumption does apply to metalworking oils or fluids if these oils or fluids are recycled in any other manner, or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

5.5 USED OIL MANAGEMENT

Used oil processor or re-refiners are subject to any applicable Spill Prevention, Control and Countermeasures, found in 40 CFR 112, in addition to the requirements of Section R315-15-5. Used oil processors or re-refiners are also subject to the standards and requirements found in Rules R311-200 through R311-209, Underground Storage Tanks, for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of Section R315-15-5.

(a) Management units. Used oil processors or re-refiners may not store used oil in units other than tanks, containers, or units subject to Rule R315-264 or Rule R315-265.

(b) Condition of units. Containers and aboveground tanks including their associated pipes and valves used to store or process used oil at processing and re-refining facilities shall be:

(1) in good condition, with no severe rusting, apparent structural defects, or deterioration;

(2) not leaking; and

(3) closed during storage except when used oil is being added or removed.

(c) Secondary containment. Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities including their pipe connections and valves shall be equipped with a secondary containment system.

(1) The secondary containment system shall consist of:

(i) dikes, berms, or retaining walls; and

(ii) a floor. The floor shall cover the entire area within the dike, berm, or retaining wall, except areas where existing portions of aboveground tanks meet the ground; or

(iii) an equivalent secondary containment system approved by the director.

(2) The entire containment system, including walls and floors, shall be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(3) The secondary containment system shall be of sufficient size and volume to prevent any used oil released from tanks and containers described in Subsection R315-15-5.5(a), from migrating out of the system to the soil, groundwater, or surface water.

(4) Water, used oil, or other liquids shall be removed from secondary containment within 24 hours of their discovery.

(5) Used oil may not be stored or allowed to accumulate in sumps and similar water containment structures at the facility. Any used oil in sumps shall be removed within 24 hours of its discovery.

(d) Labels.

(1) Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities shall be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer used oil into underground storage tanks at processing and re-refining facilities shall be labeled or marked clearly with the words "Used Oil."

(e) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of Section R311-202-1, which incorporates by reference 40 CFR 280, Subpart F, an owner or operator shall comply with Section R315-15-9.

(f) Closure.

(1) Aboveground tanks. Owners and operators who store or process used oil in aboveground tanks shall comply with the requirements in Subsections R315-15-5.5(f)(1)(i) and R315-15-5.5 (f)(1)(ii):

(i) At closure of a tank system, the owner or operator shall remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under Rules R315-260 through R315-266, R315-268, R315-270, and R315-273. Nonhazardous solid waste shall be managed in accordance with Section R315-301-4.

(ii) If the owner or operator demonstrates that contaminated soils cannot be practicably removed or decontaminated as required in Subsection R315-15-5.5(f)(1)(i), then the owner or operator shall close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to hazardous waste landfills, Section R315-265-310.

(2) Containers. Owners and operators who store used oil in containers shall comply with the requirements in Subsections R315-15-5.5(f)(2)(i) and R315-15-5.5(f)(2)(ii):

(i) at closure, containers holding used oils or residues of used oil shall be removed from the site; and

(ii) the owner or operator shall remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous waste under Rule R315-261.

5.6 ANALYSIS PLAN

Owners or operators of used oil processing or re-refining facilities shall develop and follow a written used oil analysis plan describing the procedures that will be used to comply with the analysis requirements of Sections R315-15-5.4, R315-15-18, and, if applicable, the marketer requirements in Section R315-15-7.3. The owner or operator shall keep the plan at the facility.

(a) Rebuttable presumption for used oil in Section R315-15-5.4. At a minimum the plan shall specify:

(1) whether sample analyses documented generator knowledge of the halogen content of the used oil, or both, will be used to make this determination;

(2) if sample analyses are used to make this determination, the plan shall specify:

(i) the sampling method used to get representative samples to be analyzed. A representative sample may be collected using either:

(A) one of the sampling methods in Rule R315-261 Appendix I; or

(B) a method shown to be equivalent under Section R315-260-21;

(ii) the frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iii) the methods used to analyze used oil for the parameters specified in Section R315-15-5.4; and

(3) the type of information that will be used to determine the halogen content of the used oil.

(b) On-specification used oil fuel in Section R315-15-7.3. At a minimum, the plan shall specify the following if Section R315-15-7.3 applies:

(1) whether sample analyses or other information will be used to make this determination;

(2) if sample analyses are used to make this determination:

(i) the sampling method used to get representative samples to be analyzed. A representative sample may be collected using either:

(A) one of the sampling methods in Rule R315-261, Appendix I; or

(B) a method shown to be equivalent under Section R315-260-21;

(ii) whether used oil will be sampled and analyzed before or after any processing or re-refining;

(iii) the frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iv) the methods used to analyze used oil for the parameters specified in Section R315-15-7.3.

(3) The type of information that will be used to make the on-specification used oil fuel determination.

5.7 TRACKING

(a) Acceptance. Used oil processors or re-refiners shall keep a written record of each used oil shipment accepted for processing or re-refining. These records shall take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment shall include:

(1) the name and address of the transporter who delivered the used oil to the processor or re-refiner;

(2) the name and address of the generator or processor or re-refiner from whom the used oil was sent for processing or re-refining;

(3) the EPA identification number of the transporter who delivered the used oil to the processor or re-refiner;

(4) the EPA identification number, if applicable, of the generator or processor or re-refiner from whom the used oil was sent for processing or re-refining;

(5) the quantity of used oil accepted;

(6) the date of acceptance; and

(7) written documentation that the processor or re-refiner has met the rebuttable presumption requirements of Section R315-15-5.4 and the PCB testing requirements of Section R315-15-18.

(b) Delivery. Used oil processor or re-refiners shall keep a written record of each shipment of used oil that is shipped to a used oil burner, processor or re-refiner, or disposal facility. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment shall include:

(1) the name and address of the transporter who delivers the used oil to the burner, processor or re-refiner, or disposal facility;

(2) the name and address of the burner, processor or re-refiner, or disposal facility that will receive the used oil;

(3) the EPA identification number of the transporter who delivers the used oil to the burner, processor or re-refiner, or disposal facility;

(4) the EPA identification number of the burner, processor or re-refiner, or disposal facility that will receive the used oil;

(5) the quantity of used oil shipped; and

(6) the date of shipment.

(c) Record retention. The records described in Subsections R315-15-5.7(a) and R315-15-5.7(b) shall be maintained for at least three years at the permitted facility or other location approved by the director.

5.8 OPERATING RECORD AND REPORTING

(a) Operating record.

(1) The owner or operator of the processor or re-refiner facility shall keep a written operating record at the facility.

(2) The information required by Subsections R315-15-5.8(a)(2)(i) through R315-15-5.8(a)(2)(iii) shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(i) records and results of used oil analyses performed as described in the analysis plan required under Section R315-15-5.6;

(ii) summary reports and details of any incidents that require implementation of the contingency plan as specified in Subsection R315-15-5.3(b); and

(iii) records detailing the mass balance of wastewater entering and leaving the facility. This includes wastewater discharge records. This does not include water used in non-contact cooling processes.

(b) Reporting. A used oil processor or re-refiner shall report annually March 1 to the director. The report shall be consistent with the requirements of Subsection R315-15-13.5(d).

5.9 OFF-SITE SHIPMENTS OF USED OIL

Used oil processors or re-refiners who initiate shipments of used oil off-site shall ship the used oil using a used oil transporter who has an EPA identification number, a permit, and current used oil handler certificate issued by the director.

5.10 ACCEPTANCE OF OFF-SITE USED OIL

Processors accepting used oil from off-site shall ensure that transporters delivering used oil to their facility have a current used oil transporter permit and an EPA identification number.

5.11 MANAGEMENT OF RESIDUES

Owners and operators who generate residues from the storage, processing, or re-refining of used oil shall manage the residues as specified in Subsection R315-15-1.1(e).

R315-15-6. Standards for Used Oil Burners Who Burn Used Oil for Energy Recovery.

6.1 APPLICABILITY

(a) General. A used oil burner is a person who burns used oil for energy recovery. An on-specification used oil burner is a person who only burns used oil that meets the specifications of R315-15-1.2. Used oil that has not been determined to be on-specification used oil by a Utah-registered marketer shall be managed as off-specification used oil except as described R315-15-2.4. An off-specification used oil burner is a person who burns used oil not meeting the specifications found in R315-15-1.2 for energy recovery. Facilities burning used oil for energy recovery under the following conditions are subject to R315-15-6.1(a) and (b) and R315-15-6.2(b) and (c), but not other portions of R315-15-6:

(1) The used oil is burned by the generator in an on-site space heater under the provisions of R315-15-2.4;

(2) The used oil is burned by a processor/re-refiner for purposes of processing used oil, which is considered burning incidentally to used oil processing; or

(3) The used oil burned by the facility is obtained from a Utah-registered marketer who claims and has demonstrated that the used oil meets the used oil fuel specifications set forth in R315-15-1.2 and who delivers the used oil in the manner set forth in R315-15-7.5(b).

(b) Other applicable provisions. In addition to the requirements of R315-15-6.1(a), used oil burners who conduct the following activities are subject to the requirements of R315-15 as indicated below.

(1) Burners who generate used oil shall comply with R315-15-2;

(2) Burners who transport used oil shall comply with R315-15-4;

(3) Except as provided in R315-15-6.2(b)(2), burners who process or re-refine used oil shall comply with Section R315-15-5;

(4) Burners who direct shipments of off-specification used oil from their facility to an off-specification used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in R315-15-1.2 shall comply with R315-15-7 and R315-15-13.7;

(5) Burners who dispose of used oil shall comply with R315-15-8; and

(6) Burners who collect used oil shall also comply with the collection center requirements in R315-15-3. Burners may only burn used oil collected from other generators if that used oil has been certified to be on-specification used oil by a Utah-registered used oil marketer in compliance with R315-15-7. Burners who collect and burn used oil that is not "do-it-yourselfer" or farmer-generated as described in R315-15-2.1(a)(1) and (4), shall obtain a used oil marketer registration before burning such oil and shall comply with the provisions of R315-15-7.

(7) Tanks, containers, and piping that previously contained listed hazardous waste. Unless tanks, containers, and piping that previously contained listed hazardous waste are decontaminated as described in R315-261-7 prior to storing used oil, the used oil is considered to have been mixed with the hazardous waste and shall be managed as hazardous waste unless, under the provisions of R315-15-1.1(b), the hazardous waste and used oil mixture is determined not to be hazardous waste.

(8) Tanks, containers, and piping that previously contained PCB-contaminated material. Unless tanks, containers, and piping that previously contained PCB-contaminated material are decontaminated as described in 40 CFR 761 Subpart S prior to transfer of used oil, the used oil is considered to have been mixed with the PCB-contaminated material and shall be managed as PCB-contaminated material in accordance with R315-15-18.

(c) Off-specification used oil burner permit. Off-specification used oil burners shall obtain a permit from the Director prior to burning off-specification used oil unless exempted by R315-15-13.6(b)(5). An application for a permit shall contain the information required by R315-15-13.6(b). Off-specification used oil burners shall also obtain a used oil handler certificate in accordance with R315-15-13.8.

(d) Testing of used oil fuel for PCBs. Used oil to be burned for energy recovery is presumed to contain quantifiable levels, 2 ppm or greater, of PCBs unless a used oil marketer obtains laboratory analyses that the used oil fuel does not contain quantifiable levels of PCBs. The person who first claims that the used oil fuel does not contain a quantifiable level of PCBs shall obtain analyses or other information to support the claim, as described in R315-15-18.

6.2 RESTRICTIONS ON BURNING

(a) Off-specification used oil fuel may be burned for energy recovery in only the following devices:

(1) Industrial furnaces identified in R315-260-10;

(2) Boilers, as defined in R315-260-10, that are identified as follows:

(i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;

(ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale;

(iii) Used oil-fired space heaters provided that the burner meets the provisions of R315-15-2.4; or

(3) Hazardous waste incinerators subject to regulation under R315-264-340 through 351 or 40 CFR 265.340 through 352 which are adopted by reference.

(b)(1) With the exception of the aggregation activity described in R315-15-6.2(b)(2), used oil burners may not process used oil unless they also comply with R315-15-5.

(2) Off-specification used oil burners may aggregate off-specification used oil with virgin oil or on-specification used oil for purposes of burning, but may not aggregate for purposes of marketing on-specification used oil without also complying with the processor/re-refiner requirements in R315-15-5.

(c) Burning of hazardous waste. Used oil burners may only burn hazardous waste if they are permitted to do so by the Director.

6.3 NOTIFICATION FOR OFF-SPECIFICATION USED OIL BURNERS

(a) Identification numbers. Off-specification used oil burners who have not previously complied with the notification requirements of RCRA section 3010 shall comply with these requirements and obtain an EPA identification number.

(b) Mechanics of notification. An off-specification used oil burner who has not received an EPA identification number may obtain one by notifying the Director of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12.; or

(2) A letter to the Director requesting an EPA identification number. The letter shall include the following information:

(i) Burner company name;

(ii) Owner of the burner company;

(iii) Mailing address for the burner;

(iv) Name and telephone number for the burner point of contact;

(v) Type of used oil activity; and

(vi) Location of the burner facility.

6.4 REBUTTABLE PRESUMPTION FOR USED OIL

(a) To ensure that used oil managed at a used oil burner facility is not hazardous waste under the rebuttable presumption of Subsection R315-15-1.1(b)(1)(ii), a used oil burner shall determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The used oil burner shall determine if the used oil contains above or below 1,000 ppm total halogens by

(1) Testing the used oil;

(2) Applying documented generator knowledge of the halogen content of the used oil in light of the materials and processes used; or

(3) Using information provided by the processor/re-refiner, if the used oil has been received from a processor/re-refiner subject to regulation under R315-15-5.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in R315-261-30 through 33 and 35. The owner or operator may rebut the presumption by demonstrating that the used oil does not contain hazardous waste, for example, by using an analytical method from SW-846, Edition III update IV, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in R315-261 Appendix VIII.

(1) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed through a tolling arrangement, as described in R315-15-2.5(c), to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) Record retention. Records of analyses conducted or information used to comply with R315-15-6.4(a), (b), and (c) shall be maintained at the burner facility or another facility approved by the Director for at least 3 years.

6.5 USED OIL STORAGE AT OFF-SPECIFICATION USED OIL BURNER FACILITIES

Off-specification used oil burners are subject to all applicable Spill Prevention, Control and Countermeasures, 40 CFR part 112, in addition to the requirements of R315-15-6. Used oil burners are also subject to the standards and requirements of R311-200 through R311-209, Underground Storage Tanks, for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of R315-15-6.

(a) Storage units. Off-specification used oil burners may not store used oil in units other than tanks, containers or units subject to regulation under R315-264 and R315-265.

(b) Condition of units. Containers and aboveground tanks used to store oil at off-specification used oil burner facilities shall be:

(1) In good condition, with no severe rusting, apparent structural defects, or deterioration; and

(2) Not leaking.

(c) Secondary containment. Containers and aboveground tanks used to store off-specification used oil at burner facilities, including their pipe connections and valves, shall be equipped with a secondary containment system.

(1) The secondary containment system shall consist of:

(i) Dikes, berms, or retaining walls; and

(ii) A floor. The floor shall cover the entire area within the dike, berm, or retaining wall, except areas where existing portions of aboveground tanks meet the ground.

(iii) Other equivalent secondary containment approved by the Director.

(2) The entire containment system, including walls and floor, shall be of sufficient extent and sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(3) Any accumulation of water, used oil, or other liquid shall be removed from secondary containment within 24 hours of discovery.

(4) Used oil shall not be stored or allowed to accumulate in sumps and similar water-containment structures at the facility. Any used oil in sumps and similar water-containment structures shall be removed within 24 hours of its discovery.

(d) Labels.

(1) Containers and aboveground tanks used to store off-specification used oil at burner facilities shall be labeled or marked clearly with the words "Used Oil."

(2) Fill pipes used to transfer off-specification used oil into underground storage tanks at burner facilities shall be labeled or marked clearly with the words "Used Oil."

(e) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of R311-202-1, a burner shall comply with R315-15-9.

6.6 TRACKING FOR OFF-SPECIFICATION USED OIL FACILITIES

(a) Acceptance. Off-specification used oil burners shall keep a record of each off-specification used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment shall include the following information:

(1) The name and address of the transporter who delivered the used oil to the burner;

(2) The name and address of the generator or processor/re-refiner from whom the used oil was sent to the burner;

(3) The EPA identification number of the transporter who delivered the used oil to the burner;

(4) The EPA identification number, if applicable, of the generator or processor/re-refiner from whom the used oil was sent to the burner;

(5) The quantity of used oil accepted;

(6) The date of acceptance; and

(7) Documentation demonstrating that the transporter has met the rebuttable presumption requirements of R315-15-6.4 and, where applicable, the PCB testing requirements of R315-15-18;

(b) Record retention. The records described in paragraph (a) of this section shall be maintained for at least three years.

6.7 NOTICES

(a) Certification. Before a burner accepts the first shipment of off-specification used oil fuel from a generator, transporter, or processor/re-refiner, the burner shall provide to the generator, transporter, or processor/re-refiner a one-time written and signed notice certifying that:

(1) The burner has notified the Director of the location and general description of the burner's used oil management activities; and

(2) The burner will burn the off-specification used oil only in an industrial furnace or boiler identified in R315-15-6.2(a).

(b) Certification retention. The certification described in R315-15-6.7(a) shall be maintained, at the permitted facility or other location approved by the Director, for three years from the date the burner last receives shipment of off-specification used oil from that generator, transporter, or processor/re-refiner.

6.8 MANAGEMENT OF RESIDUES AT OFF-SPECIFICATION USED OIL BURNER FACILITIES

Off-specification used oil burners who generate residues from the storage or burning of used oil shall manage the residues as specified in R315-15-1.1(e).

6.9 ACCEPTANCE OF OFF-SITE USED OIL

Off-specification used oil burners accepting used oil from off-site shall ensure that transporters delivering used oil to their facility have obtained a current used oil transporter permit and an EPA identification number.

R315-15-7. Standards for Used Oil Fuel Marketers.

7.1 APPLICABILITY

(a) Any person who conducts either of the following activities is a used oil fuel marketer and is subject to the requirements of R315-15-7 and R315-15-13.7:

(1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or

(2) First determines and claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in R315-15-1.2.

(b) The following persons are not used oil fuel marketers subject to R315-15-7:

(1) Used oil generators, and transporters who transport used oil received only from generators, unless the generator or transporter directs a shipment of off-specification used oil from their facility to a used oil burner. However, processors/re-refiners who burn some used oil fuel for purposes of processing are considered to be burning incidentally to processing. Thus, generators and transporters who direct shipments of off-specification used oil to processors/re-refiners who incidentally burn used oil are not marketers subject to R315-15-7;

(2) Persons who direct shipments of on-specification used oil and who are not the first person to claim the oil meets the used oil fuel specifications of R315-15-1.2.

(c) Any person subject to the requirements of R315-15-7 shall also comply with one of the following:

(1) R315-15-2 - Standards for Used Oil Generators;

(2) R315-15-4 - Standards for Used Oil Transporters and Transfer Facilities;

(3) R315-15-5 - Standards for Used Oil Processors and Re-refiners; or

(4) R315-15-6 - Standards for Used Oil Burners who Burn Off-Specification Used Oil for Energy Recovery.

(d) A person may not act as a used oil fuel marketer without receiving a registration number and a used oil handler certificate, both issued by the Director as required by R315-15-13.7 and R315-15-13.8.

7.2 PROHIBITIONS

A used oil fuel marketer may initiate a shipment of off-specification used oil only to a used oil burner who:

(a) Has an EPA identification number; and

(b) Burns the used oil in an industrial furnace or boiler identified in R315-15-6.2(a).

7.3 ON-SPECIFICATION USED OIL FUEL

(a) Analysis of used oil fuel. A used oil fuel marketer who is a used oil generator, transporter, transfer facility, processor/re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of R315-15-1.2 and the PCB requirements of R315-15-18 by performing analyses or obtaining copies of analyses or other information approved by the Director documenting that the used oil fuel meets the specifications. Used oil is not considered to be on-specification until it has been certified as such by a registered used oil fuel marketer in accordance with the used oil fuel marketer's analysis plan, approved by the Director.

(b) Record retention. A generator, transporter, transfer facility, processor/re-refiner, or burner who first certifies that used oil that is to be burned for energy recovery meets the specifications for used oil fuel under R315-15-1.2 and the PCB requirements of R315-15-18 shall keep copies of analyses of the used oil, or other information used to make the determination, for three years.

7.4 NOTIFICATION

(a) Identification numbers. A used oil fuel marketer subject to the requirements of R315-15-7 who has not previously complied with the notification requirements of RCRA section 3010 shall comply with these requirements and obtain an EPA identification number.

(b) A marketer who has not received an EPA identification number may obtain one by notifying the Director of their used oil activity by submitting either:

(1) A completed EPA Form 8700-12; or

(2) A letter to the Director requesting an EPA identification number. The letter shall include the following information:

(i) Marketer company name;

(ii) Owner of the marketer;

(iii) Mailing address for the marketer;

(iv) Name and telephone number for the marketer point of contact; and

(v) Type of used oil activity, e.g., generator directing shipments of off-specification used oil to a burner.

7.5 TRACKING

(a) Off-specification used oil delivery. Any used oil marketer who directs a shipment of off-specification used oil to a burner shall keep a record of each shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading or other shipping documents. Records for each shipment shall include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner;

(2) The name and address of the burner who will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner;

(4) The EPA identification number of the burner;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(b) On-specification used oil delivery. A generator, transporter, transfer facility, processor/re-refiner, or burner who first certifies that used oil that is to be burned for energy recovery meets the fuel specifications under R315-15-1.2 shall keep a record of each shipment of used oil to an on-specification used oil burner. Records for each shipment shall include the following information:

(1) The name and address of the facility receiving the shipment;

(2) The quantity of used oil fuel delivered;

(3) The date of shipment or delivery; and

(4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specifications required under R315-15-7.3(a) and the PCB requirements of R315-15-18.

(c) Record retention. The records described in R315-15-7.5(a) and (b) shall be maintained for at least three years.

7.6 NOTICES

(a) Certification. Before a used oil generator, transporter, transfer facility, or processor/re-refiner directs the first shipment of off-specification used oil fuel to a burner, he shall obtain a one-time written and signed notice from the burner certifying that:

(1) The burner has notified the Director stating the location and general description of used oil management activities; and

(2) The burner has obtained an EPA identification number and, if the off-specification used oil is burned in Utah, an off-specification used oil burner permit and current used oil handler certificate from the Director; and

(3) The burner will burn the off-specification used oil only in an industrial furnace or boiler identified in R315-15-6.2(a).

(b) Certification retention. The certification described in R315-15-7.6(a) of this section shall be maintained for three years, at the permitted facility or other location approved by the Director, from the date the last shipment of off-specification used oil is shipped to the burner.

7.7 LABORATORY ANALYSES

Used oil marketers shall use a Utah-certified laboratory, as specified in R315-15-1.8, to satisfy the analytical requirements of R315-15-7.

R315-15-8. Standards for the Disposal of Used Oil.

8.1 APPLICABILITY

The requirements of R315-15-8 apply to all used oils that cannot be recycled and are therefore being disposed.

8.2 DISPOSAL

(a) Disposal of hazardous used oils. Used oils that are identified as a hazardous waste and that cannot be recycled in accordance with R315-15 shall be managed in accordance with the hazardous waste management requirements of R315-260 through 266, 268, 270, and 273.

(b) Disposal of nonhazardous used oils. Used oils that are not hazardous wastes and cannot be recycled under Rule R315-15 shall be disposed in a solid waste disposal facility meeting the applicable requirements of Rules R315-301 through R315-318.

8.3 USE AS A DUST SUPPRESSANT, WEED SUPPRESSANT, OR FOR ROAD OILING

The use of used oil as a dust suppressant, weed suppressant, or for road oiling or other similar use is prohibited.

R315-15-9. Emergency Controls.

9.1 IMMEDIATE ACTION

In the event of a release of used oil, the person responsible for the material at the time of the release shall immediately:

(a) take appropriate action to minimize the threat to human health and the environment.

(1) stop the release;

(2) contain the release;

(3) clean up and manage properly the released material as described in Section R315-15-9.3; and

(4) if necessary, repair or replace any leaking used oil tanks, containers, and ancillary equipment before returning them to service.

(b) Notify the Utah State Department of Environmental Quality, 24-hour Answering Service, 801-536-4123 for used oil releases exceeding 25 gallons, or smaller releases that pose a potential threat to human health or the environment. Small leaks and drips from vehicles are considered de minimis and are not subject to the release clean up provisions of Section R315-15-9.

(c) Provide the following information when reporting the release:

(1) name, phone number, and address of person responsible for the release;

(2) name, title, and phone number of individual reporting;

(3) time and date of release;

(4) location of release--as specific as possible including nearest town, city, highway, or waterway;

(5) description contained on the manifest and the amount of material released;

(6) cause of release;

(7) possible hazards to human health or the environment and emergency action taken to minimize that threat; and

(8) the extent of injuries, if any.

(d) An air, rail, highway, or water transporter who has discharged used oil shall:

(1) give notice, if required by 49 CFR 171.15, to the National Response Center, http://nrc.uscg.mil/nrchp.html, 800-424-8802 or 202-426-2675; and

(2) report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

(e) A water, bulk shipment, transporter who has discharged used oil shall give the notice as required by 33 CFR 153.203 for oil and hazardous substances.

9.2 EMERGENCY CONTROL VARIANCE

If a release of used oil requires immediate removal to protect human health or the environment, as determined by the Director, a variance to the used oil transporter permit and used oil handler certificate requirement and the US EPA identification number requirement for used oil transporters may be granted by the Director until the released material and any residue or contaminated soil, water, or other material resulting from the release no longer presents an immediate hazard to human health or the environment, as determined by the Director.

9.3 RELEASE CLEAN UP

The person responsible for the material at the time of the release shall clean up the released material and any residue or contaminated soil, water or other material resulting from the release or take action as may be required by the Director so that the released material, residue, or contaminated soil, water, or other material no longer presents a hazard to human health or the environment. The Director may require releases to be cleaned up to standards found in US EPA Regional Screening Levels. The clean up or other required actions shall be at the expense of the person responsible for the release.

9.4 REPORTING

Within 15 days after any release of used oil that is reported under Subsection R315-15-9.1(b), the person responsible for the material at the time of the release shall submit to the Director a written report that contains the following information:

(a) the person's name, address, and telephone number;

(b) date, time, location, and nature of the incident;

(c) name and quantity of materials involved;

(d) the extent of injuries, if any;

(e) an assessment of actual or potential hazards to human health or the environment, where this applies; and

(f) the estimated quantity and disposition of recovered material that resulted from the incident.

R315-15-10. Financial Requirements.

(a) Used oil activities. An owner or operator of an off-specification burner facility, transportation facility, processing/re-refining facility, or transfer facility, or a group of such facilities, is financially responsible for:

(1) cleanup and closure costs;

(2) general liabilities, including operation of motor vehicles, worker compensation and contractor liability; and

(3) environmental pollution legal liability for bodily injury or property damage to third parties resulting from sudden or non-sudden used oil releases.

(i)(A) The owner or operator of a permitted used oil facility or operation shall present evidence satisfactory to the Director of its ability to meet these financial requirements.

(B) The owner or operator shall present with its permit application the information the Director requires to demonstrate its general comprehensive liability coverage.

(C) The owner or operator shall use the financial mechanisms described in R315-15-12 to demonstrate its ability to meet the financial requirements of R315-15-10(a)(1) and (a)(3).

(ii) In approving the financial mechanisms used to satisfy the financial requirements, the Director will take into account existing financial mechanisms already in place by the facility if required by R315-264-140 through 151, R315-265-140 through 150, and R311-201-6. Additionally, the Director will consider other relevant factors in approving the financial mechanisms, such as the volumes of used oil handled and existing secondary containment.

(iii) Financial responsibility, environmental pollution legal liability and general liability coverage shall be provided to the Director as part of the permit application and approval process and shall be maintained until released by Director.

(iv) Changes in extent, type, or amount of the environmental pollution legal liability and financial responsibility shall be considered a permit modification requiring notification to and approval from the Director.

(b)(1) Environmental pollution legal liability coverage for third party damages at used oil facilities. Each used oil processor, re-refiner, transfer facility, and off-specification burner shall obtain and maintain environmental pollution liability coverage for bodily injury and property damage to third parties resulting from sudden accidental releases, non-sudden accidental releases, or both, of used oil at its facility. This liability coverage shall be maintained for the duration of the permit or until released by the Director as provided for in R315-15-10.

(2) Changes in extent, type, or amount of the financial mechanism will be considered a permit modification requiring notification to and approval from the Director. The minimum amount of environmental pollution legal liability coverage using an assurance mechanism as specified in this section for third-party damages shall be:

(i) For operations where individual volumes of used oil are greater than 55 gallons, such as tanks, storage vessels, used oil processing equipment, and that are raised above grade-level sufficiently to allow for visual inspection of the underside for releases shall be required to obtain coverage in the amount of $1 million per occurrence for sudden releases, with an annual aggregate coverage of $2 million, exclusive of legal defense costs; and

(ii) For operations in whole or part that do not qualify under Subsection R315-15-10(b)(2)(i), coverage shall be in the amount of $1 million per occurrence for sudden releases, with an annual aggregate coverage of $2 million, and $3 million per occurrence for non-sudden releases, with an annual aggregate coverage of $6 million, exclusive of legal defense costs;

(iii) For operations covered under Subsection R315-15-10(b)(2)(ii), the owner or operator may choose to use a combined liability coverage for sudden and non-sudden accidental releases in the amount of $4 million per occurrence, with an annual aggregate coverage of $8 million, exclusive of legal defense costs.

(c) Used oil transporter environmental pollution legal liability coverage for third party damages. Each used oil transporter shall obtain environmental pollution legal liability coverage for bodily injury and property damage to third parties covering sudden accidental releases of used oil from its vehicles and other equipment and containers used during transit, loading, and unloading in Utah, and shall maintain this coverage for the duration of the permit or until released by the Director as provided for R315-15-10. The minimum amount of the coverage for used oil transporters shall be $1 million per occurrence for sudden releases, with an annual aggregate coverage of $2 million, exclusive of legal defense costs. Changes in extent, type, or amount of the liability coverage shall be considered a permit modification requiring notification to and approval from the Director.

(d) An owner or operator responsible for cleanup and closure under R315-15-11 or environmental pollution legal liability for bodily injury and property damage to third parties under R315-15-10(b) and (c) shall demonstrate its ability to satisfy its responsibility to the Director through the use of an acceptable financial assurance mechanism indicated under R315-15-12.

(e) Used Oil Collection Centers. Except for DIYers, who are subject to Utah Code Annotated 19-6-718, an owner of a used oil collection center shall be subject to the same liability requirements as a permitted facility under R315-15-10(a) and (b) unless these requirements are waived by the Director. In accordance with Utah Code Annotated 19-6-710, the Director may waive the requirement of proof of liability insurance or other means of financial responsibility that may be incurred in collecting or storing used oil if the following criteria are satisfied:

(1) The used oil storage tank or container is in good condition with no severe rusting, apparent structural defects or deterioration, and no visible leaks;

(2) There is adequate secondary containment for the tank or container that is impervious to used oil to prevent any used oil released into the secondary containment system from migrating out of the system;

(3) The storage tank or container is clearly labeled with the words "Used Oil";

(4) DIYer log entries are complete including the name and address of the generator, date and quantity of used oil received; and

(5) Oil sorbent material is readily available on site for immediate cleanup of spills.

(f) The Director shall waive an owner or operator from its existing financial responsibility mechanism as described in R315-15-10 when:

(1) The Director approves an alternative mechanism;

(2) The owner or operator has achieved cleanup and closure according to R315-15-11; or

(3) The Director determines that financial responsibility is no longer applicable under R315-15.

(g) State of Utah and Federal government used oil permittees are exempt from the requirements of R315-15-10.

R315-15-11. Cleanup and Closure.

11.1 The owner or operator of a used oil collection, aggregation, transfer, processing/re-refining, or off-specification used oil burning facility shall remove all used oil and used oil residues from the site of operation and return the site to a post-operational land use in a manner that:

(a) Minimizes the need for further maintenance;

(b) Controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of used oil, used oil constituents, leachate, contaminated run-off, or used oil decomposition products to the ground or surface waters, or to the atmosphere; and

(c) Complies with the closure requirements of R315-15-11 or supplies evidence acceptable to the Director demonstrating a closure mechanism meeting the requirements of R315-264-140 through 151 and R315-265-140 through 150.

(d) The permittee shall be responsible for used oil, used oil contaminants, or used oil residual materials that have been discharged or migrate beyond the facility property boundary. The permittee is not relieved of all or any responsibility to cleanup, remedy or remediate a release that has discharged or migrated beyond the facility boundary where off-site access is denied. When off-site access is denied, the permittee shall demonstrate to the satisfaction of the Director that, despite the permittee's best efforts, the permittee was unable to obtain the necessary permission to undertake the actions to cleanup, remedy or remediate the discharge or migration. The responsibility for discharges or migration beyond the facility property boundary does not convey any property rights of any sort, or any exclusive privilege to the permittee.

11.2 CLEANUP AND CLOSURE PLAN

(a) Written plan.

(1) The owner or operator of a used oil transfer, off-specification burner, or processing/re-refining facility shall have a written cleanup and closure plan. The cleanup and closure plan shall be submitted to the Director for approval as part of the permit application.

(2) When physical or operational conditions at the facility change that result in a change in the nature or extent of cleanup and closure or an increase in the estimated costs of cleanup and closure, the owner or operator shall submit a modified plan for review and approval by the Director.

(3) Changes in the amount or face value of a financial mechanism that are the result of the annual inflation update from the application of the implicit price deflator multiplier to a permit cleanup and closure plan cost estimate shall not require approval by the Director.

(4) The adjustment shall be made by recalculating the cleanup closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross Domestic Product published by the U.S. Department of Commerce, Bureau of Economic Analysis in its Survey of Current Business as specified in R315-264-145(b)(1) and (2). The inflation factor is the incremental increase of the latest published annual Deflator to the Deflator for the previous year divided by the previous year Deflator. The first adjustment is made by multiplying the cleanup closure cost estimate by the inflation factor. The result is the adjusted cleanup closure cost estimate. Subsequent adjustments are made by multiplying the latest adjusted cleanup closure cost estimate by the latest inflation factor.

(b) Content of plan. The plan shall identify steps necessary to perform partial or final cleanup and closure of the facility at any point during its active life.

(1) The cleanup and closure plan shall be based on third-party, direct-estimated costs or on third-party costs using RS Means methods, applications, procedures, and use cost values applicable to the location of the facility and include, at least:

(i) A description of how each used oil management unit at the facility will be closed.

(ii) A description of how final cleanup and closure of the facility will be conducted. The description shall identify the maximum extent of the operations that will be cleaned, closed, or both during the active life of the facility.

(iii) The highest cost estimate of the maximum inventory of used oil to be stored onsite at any one time during the life of the facility and a detailed description of the methods to be used during partial cleanup and closure final cleanup and closure, or both, including, but not limited to, methods for removing, transporting, or disposing of all used oil, and identification of the off-site used oil facilities to be used, if applicable.

(iv) A detailed description of the steps needed to remove or decontaminate all used oil and used oil residues and contaminated containment system components, equipment, structures, and soils during partial or final cleanup and closure, including procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy closure. This description shall address the management and disposal of all residues resulting from the decontamination activity, including, but not limited to, rinse waters, rags, personal protective equipment, small hand implements, vehicles, and mechanized equipment.

(v) A detailed description of other activities necessary during the cleanup and closure period to ensure that all partial closures shall satisfy the final cleanup and closure plan.

(vi) A cleanup and closure cost estimate and a mechanism for financial responsibility to cover the cost of cleanup and closure

(vii) State of Utah and Federal government used oil permittees are exempt from the requirements of R315-15-11(b)(1)(vi).

(2) The owner or operator shall update its cleanup and closure plan cost estimate and provide the updated estimate to the Director, in writing, within 60 days following a facility modification that causes an increase in the amount of the financial responsibility required under R315-15-10. Within 30 days of the Director's approval of a permit modification for the cleanup and closure plan that would result in an increased cost estimate, the owner or operator shall provide to the Director:

(i) evidence that the financial assurance mechanism amount or value includes the cleanup and closure cost estimate increase; or

(ii) other mechanisms covering the increased closure plan cost estimate and a summary document indicating the multiple financial mechanisms, by mechanism name, account number, and the amounts to satisfy R315-15-10 and 11.

(c) The owner or operator shall update the cleanup and closure cost estimate to adjust for inflation and include the updated estimate in the permitted facility's annual report due by March 1st of each year, using either:

(1) the multiplier formed from the gross domestic product implicit price deflator ratio of the current calendar year to the past calendar year as published by the federal government Bureau of Economic Analysis; or

(2) new cleanup and closure cost estimate from the recalculation of the cleanup and closure plan costs to account for all changes in scope and nature of the facility or facilities, in current dollars.

11.3 TIME ALLOWED TO INITIATE CLOSURE

(a) The owner or operator shall initiate closure in accordance with the approved cleanup and closure plan and notify the Director that closure has been initiated:

(1) Within 90 days after the owner or operator receives the final volume of used oil; or

(2) Within 90 days after the Director revokes the facility's used oil permit.

(b) During the cleanup and closure period or at any other time, if the Director determines that the owner or operator has failed to comply with R315-15, the Director may, after 30 days following written notice to the owner or operator, draw upon the financial mechanism associated with the cleanup and closure plan for the facility or facilities covered by the financial responsibility requirements of R315-15-10.

11.4 CERTIFICATION OF CLOSURE

(a) Within 60 days of completion of cleanup and closure, the owner or operator of a permitted used oil facility shall submit to the Director, by registered mail, a certification that the used oil facility has been cleaned and closed in accordance with the specifications in the approved cleanup and closure plan. The certification shall be signed by the owner or operator and by an independent, Utah-registered professional engineer.

(b) The Director shall make the determination of whether cleanup and closure has been completed according to the cleanup and closure plan and R315-15.

R315-15-12. Financial Assurance.

12.1 DEFINITIONS

For the purposes of R315-15-12, the following definitions apply:

(a) "Existing used oil facility" means any used oil transfer facility, off-specification burner, or used oil processing/re-refining facility in operation on July 1, 1993 under a used oil operating permit issued by the Division of Oil, Gas and Mining and in effect on or before June 30, 1993. An existing used oil facility is also required to obtain a permit from the Director in accordance with R315-15-13.

(b) "New used oil facility" means any used oil transfer, off-specification burner, or used oil processing/re-refining facility that was not in operation as a used oil facility on July 1, 1993, and received an operating permit in accordance with R315-15-13 from the Director after July 1, 1993.

(c) "Financial assurance mechanism" means "reclamation surety" as used in Utah Code Annotated 19-6-709 and 19-6-710 of the Used Oil Management Act.

12.2 APPLICABILITY

(a) The owner or operator of an existing or new used oil facility requiring a permit under R315-15-13 shall establish a financial assurance mechanism as evidence of financial responsibility under R315-15-10 sufficient to assure cleanup and closure of the facility in conformance with R315-15-11.1 with one or more of the financial assurance mechanisms of R315-15-12.3 prior to receiving a permit from the Director.

(b) Any increase in capacity to store or process used oil at a used oil facility permitted by the Director, above the storage or processing capacity identified in the permit application approved by the Director, shall require the owner or operator of the permitted used oil facility to increase the amount or face value of the financial assurance mechanism to meet the additional capacity. The additional amount or increase in face value of financial assurance mechanism shall be in place and effective before operation of the increased storage or processing capacity and shall meet the requirements of R315-15-12.3 and R315-15-12.4.

(c) DIYer used oil collection centers, generator used oil collection centers, and used oil aggregation points are not required to post a financial assurance mechanism, but are subject to the cleanup and closure requirements of R315-15-10 and R315-15-11 unless they have received a waiver in writing from the Director as identified in R315-15-10(e).

12.3 FINANCIAL ASSURANCE MECHANISMS

(a) Any financial assurance mechanism used to show financial responsibility under R315-15-10 and 11 for an existing or new used oil facility shall:

(1) be legally valid, binding, and enforceable under Utah and federal law;

(2) be approved by the Director;

(3) ensure that funds will be available in a timely fashion for:

(i) completing all cleanup and closure activities indicated in the closure plan of the permit approved by the Director; and

(ii) environmental pollution legal liability for third party damages for bodily injury and property damage resulting from a sudden or non-sudden accidental release of used oil from or arising from permitted operations; and

(4) require a written notice sent by certified mail to the Director 120 days prior to cancellation or termination of the financial mechanism.

(5) be updated each year to adjust for inflation, using either:

(i) the gross domestic product implicit price deflator ratio of the increase of the current calendar year to the past calendar year or

(ii) a new estimated cleanup and closure cost estimate recalculated to account for all changes in scope and nature of the permitted operation.

(b) The owner or operator of an existing or new used oil facility shall establish a financial assurance mechanism for cleanup and closure by one of the following mechanisms and shall submit a signed original or an original signed duplicate of the financial assurance mechanism to the Director for approval as part of the permit application:

(1) Trust Fund.

(i) The trustee shall be an entity that has the authority to act as a trustee and whose operations are regulated and examined by a federal or state agency.

(ii) A signed original or an original signed duplicate of the trust agreement and accompanied by a formal certification of acknowledgement shall be submitted to the Director.

(iii) For trust funds that are fully funded at the time of permit approval, an annual trust valuation shall be certified and submitted to the Director. The permittee shall provide evidence annually, upon the anniversary of the trust agreement, that the trust remains fully funded.

(iv) For trust funds not fully funded at the time of permit approval by the Director, incremental payments into the trust fund shall be made annually by the owner or operator to fully fund the trust within five years of the Director's approval of the permit as follows:

(A) initial payment value shall be the initial cleanup and closure cost estimate value divided by the pay-in period, not to exceed five years, and

(B) next payment value shall be the difference of the approved current cleanup and closure cost estimate less the trust fund value, all divided by the remaining number of years in the pay-in period, and

(C) subsequent next payments shall be made into the trust fund annually on or before the anniversary date of the initial payment made into the trust fund and reported in accordance with the approved trust agreement, and

(D) no later than 30 days after the last incremental payment to fully fund the trust, the permittee shall provide proof to the Director that the trust fund has been fully funded according to the current permitted cleanup and closure cost estimate.

(E) The facility shall submit an annual valuation of the trust to the Director on or before the anniversary date of the trust.

(v) For a new used oil facility, the payment into the trust fund shall be made before the initial receipt of used oil.

(vi) The owner or operator, or other person authorized to conduct cleanup and closure activities may request reimbursement from the trustee for cleanup and closure completed when approved in writing by the Director.

(vii) The request for reimbursement may be granted by the trustee as follows:

(A) only if sufficient funds exist to cover the reimbursement request; and

(B) if justification and documentation of the cleanup and closure expenditures are submitted to and approved by the Director in writing prior to the trustee granting reimbursement.

(viii) The Director may cancel the incremental trust funding option at any time and require the permittee to provide either a fully funded trust or other cleanup and closure financial mechanism as provided in R315-15-12 under the following conditions:

(A) upon the insolvency of the permittee, or

(B) when a violation of R315-15-10, 11 or 12 has been determined.

(ix) The trust agreement shall follow the wording provided by the Director as identified in R315-15-17.2.

(2) Surety Bond Guaranteeing Payment.

(i) The bond shall be effective before the initial receipt of used oil.

(ii) The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury and the owner or operator shall notify the Director that a copy of the bond has been placed in the operating record.

(iii) The penal sum of the bond shall be in an amount at least equal to the cleanup and closure cost estimate developed under R315-15-11.2.

(iv) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(v) The owner or operator shall establish a standby trust agreement at the time the bond is established.

(A) The standby trust agreement shall meet the requirements of R315-15-12.3(b)(1), except for R315-15-12.3(b)(1)(iii), (viii), and (ix) and the standby trust agreement shall follow the wording provided by the Director as identified in R315-15-17.14.

(B) Payment made under the terms of the bond shall be deposited by the surety directly into the standby trust agreement and payments from the standby trust fund shall be approved by the trustee with the written concurrence of the Director.

(vi) The surety bond shall automatically be renewed on the expiration date unless cancelled by the surety company 120 days in advance by sending both the bond applicant and the Director a written cancellation notice by certified mail.

(vii) The bond applicant may terminate the bond for nonpayment of fee by providing written notice, by certified mail, to the Director 120 days prior to termination.

(viii) Any change to the form or content of the surety bond shall be submitted to the Director for approval and acceptance.

(ix) The surety bond shall follow the language provided by the Director found in R315-15-17.3.

(3) Letter of Credit

(i) The letter of credit shall be effective before the initial receipt of used oil

(ii) The financial institution issuing the letter of credit shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a state or federal agency.

(iii) The letter of credit shall be issued in an amount at least equal to the cleanup and closure cost estimate developed under R315-15-11.2.

(iv) The owner or operator shall establish a standby trust agreement at the time the letter of credit is established.

(A) The standby trust agreement shall meet the requirements of R315-15-12.3(b)(1), except for Subsections R315-15-12.3(b)(1)(iii), (viii), and (ix) and the standby trust agreement shall follow the language incorporated by reference in R315-15-17.14.

(B) Payment made under the terms of the letter of credit shall be deposited by the surety directly into the standby trust and payments from the standby trust fund shall be approved by the trustee with the written concurrence of the Director.

(v) The letter of credit shall follow the wording provided by the Director as identified in R315-15-17.4.

(4) Insurance.

(i) The insurance shall be effective before the initial receipt of used oil.

(A) Insurance coverage period shall be the earliest date of permit issuance or a retroactive date established by the earliest period of coverage for any financial assurance mechanism.

(ii) At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

(iii) The insurance policy shall guarantee that funds will be available to perform the cleanup and closure activities approved by the Director.

(iv) The policy shall guarantee that the insurer will be responsible for the paying out of funds to the owner or operator or person authorized to conduct the cleanup and closure activities, as approved by the Director, up to an amount equal to the face amount of the policy. Payment of any funds by the insurer shall be made with the written concurrence of the Director.

(A) The Insurer shall establish at a standby trust agreement for only the benefit of the Director when the Director notifies the Insurer that the Director is making a claim, as provided for in R315-15, for cleanup and closure of a permitted used oil transfer, processor, re-refiner, or off-specification burner facility.

(B) The Insurer shall place the face value of the applicable coverage in the trust within 30 days of establishing the standby trust agreement.

(C) The standby trust agreement shall meet the requirements of R315-15-12.3(b)(1), except for R315-15-12.3(b)(1)(iii), (iv), (v), (viii), and (xi), and the standby trust agreement shall follow the language provided by the Director incorporated by reference in R315-15-17.14.

(v) The insurance policy shall be issued for a face amount at least equal to the cleanup and closure cost estimate developed under R315-15-11.2.

(vi) An owner or operator, or other person authorized by the Director, may receive reimbursements for cleanup and closure activities completed if:

(A) the value of the policy is sufficient to cover the reimbursement request; and

(B) justification and documentation of the cleanup and closure expenditures are submitted to and approved by the Director, prior to receiving reimbursement.

(vii) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator.

(viii) The insurance policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. If there is a failure to pay the premium, the insurer may cancel the policy by sending notice of cancellation by certified mail to the owner or operator and the Director 120 days in advance of cancellation. If the insurer cancels the policy, the owner or operator shall obtain an alternate financial assurance mechanism meeting the requirements for financial responsibility under R315-15-10 and of this subsection within 60 days of notice of cancellation of the policy.

(ix) The policy coverage amount for cleanup and closure is exclusive of legal and defense costs.

(x) Bankruptcy or insolvency of the Insured shall not relieve the Insurer of its obligations under the policy.

(xi) The Insurer as first-payer is liable for the payment of amounts within any deductible, retention, self-insured retention (SIR), or reserve applicable to the policy, with a right of reimbursement by the Insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible, retention, self-insured retention, or reserve for which coverage is otherwise demonstrated as specified in R315-15-12.

(xii) Whenever requested by the Director, the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

(xiii) Cancellation of the policy, whether by the Insurer, the Insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the used oil management facility, will be effective only upon written notice and only after the expiration of 120 days after a copy of such written notice is received by the Director for those facilities that are located in Utah.

(xiv) Any other termination of the policy will be effective only upon written notice and only after the expiration of 120 days after a copy of such written notice is received by the Director for those facilities that are located in Utah.

(xv) All policy provisions related to R315-15 shall be construed in accordance with the laws of the State of Utah. In the event of the failure of the Insurer to pay any amount claimed to be due hereunder, the Insurer and the Insured will submit to the jurisdiction of the appropriate court of the State of Utah, and will comply with all the requirements necessary to give such court jurisdiction. All matters arising hereunder, including questions related to the interpretation, performance and enforcement of this policy, shall be determined in accordance with the law and practice of the State of Utah (notwithstanding Utah conflicts of law rules).

(xvi) Endorsement(s) added to, or removed from the policy that have the effect of affecting the environmental pollution liability language, directly or indirectly, shall be approved in writing by the Director before said endorsement(s) become effective.

(xvii) Neither the Insurer nor the Insured shall contest the state of Utah's use of the drafting history of the insurance policy in a judicial interpretation of the policy or endorsement(s) to said policy.

(xviii) The Insurer shall establish a standby trust fund for the benefit of the Director at the time the Director first makes a claim against the insurance policy.

(A) The standby trust fund shall meet the requirements of R315-15-12.3(b)(1), except for item R315-15-12.3(b)(1)(iii), (iv), (v), (viii), and (ix) and the standby trust agreement shall follow the wording found in R315-15-17.14.

(B) Payment made under the terms of the insurance policy shall be deposited by the Insurer as grantor directly into the standby trust fund and payments from the trust fund shall be approved by the trustee with the written concurrence of the Director.

(5) The owner or operator of an existing or new used oil facility may establish a financial assurance mechanism by a combination of the above mechanisms as approved by the Director.

(c) The owner or operator of an existing or new used oil facility or operation shall establish a financial assurance mechanism for bodily injury and property damage to third parties resulting from sudden and/or non-sudden accidental releases of used oil from a permitted used oil facility or operation as follows:

(1) An owner or operator that is a used oil processor, transfer facility, or off-specification burner, or a group of such facilities regulated under R315-15 shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden and/or non-sudden accidental release of used oil arising from operations or operations of the facility or group of facilities shall have and maintain liability coverage in the amount as specified in R315-15-10(b). This liability coverage shall be demonstrated by one or more of the financial mechanisms in R315-15-12.3(c)(3).

(2) An owner or operator that is a used oil transporter regulated under R315-15, must demonstrate financial responsibility for bodily injury and property damage to third-parties resulting from sudden release of used oil arising from transit, loading and unloading, to or from facilities within Utah. The owner or operator shall maintain liability coverage for sudden accidental occurrences in the amount specified in R315-15-10(c). This liability coverage shall be demonstrated by one or more of the financial mechanisms in R315-15-12.3(c)(3).

(3) The owner or operator shall demonstrate compliance with R315-15-10(b) or (c) by using one or more of the following financial assurance mechanisms:

(i) Insurance. The owner or operator shall follow the wording provided by the Director identified in R315-15-17.5 through R315-15-17.9, as may be applicable.

(ii) Trust. The owner or operator shall follow the wording provided by the Director identified in R315-15-17.12.

(iii) Surety Bond. The owner or operator shall follow the wording provided by the Director identified in R315-15-17.11.

(iv) Letter of Credit. The owner or operator shall follow the wording provided by the Director identified in R315-15-17.10.

(d) Adjustments by the Director. If the Director determines that the levels of financial responsibility required by R315-15-10(b) or (c), as applicable are not consistent with the degree and duration of risk associated with used oil operations or facilities, the Director may adjust the level of financial responsibility required under R315-15-10(b) or (c), as applicable, as may be necessary to protect human health and the environment. This adjusted level will be based on the Director's assessment of the degree and duration of risk associated with the used oil operations or facilities. In addition, if the Director determines that there is a significant risk to human health and the environment from non-sudden release of used oil resulting from the used oil operations or facilities, the Director may require that an owner or operator of the used oil facility or operation comply with R315-15-10(b) and (c), as applicable. An owner or operator must furnish, within a reasonable time to the Director when requested in writing, any information the Director requests to determine whether cause exists for an adjustment to the financial responsibility under R315-15-10(b) or (c) with the used oil operations or facilities. Failure to provide the requested information as and when requested under this section may result in the Director revoking the owner's or operator's used oil permit(s). Any adjustment of the level or type of coverage for a facility that has a permit will be treated as a permit modification.

(e) When the owner or operator of a permitted used oil facility or operation believes that its responsibility for cleanup and closure or for environmental pollution liability as described in R315-15-10(d) has changed, it may submit a written request to the Director to modify its permit to reflect the changed responsibility.

(f) The Director may release the requirement for cleanup and closure financial assurance after the owner or operator has clean-closed the facility according to R315-15-11.

(g) The owner or operator of a permitted used oil facility or operation may request the Director to modify its permit to change its financial assurance mechanism or mechanisms as described in R315-15-12.

(h) The Director may modify the permit to change financial assurance mechanism or mechanisms after the owner or operator has established a replacement financial assurance mechanism or mechanisms acceptable to the Director.

(i) Incapacity of owners or operators, guarantor, or financial institution. An owner or operator of a permitted used oil facility or operation shall notify the Director by certified mail within ten days of the commencement of a bankruptcy proceeding naming the owner or operator as debtor.

(1) An owner or operator who fulfills the financial responsibility requirements by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be considered to be without the required financial responsibility or liability coverage in the event of:

(i) bankruptcy of the trustee or issuing institution; or

(ii) a suspension or revocation of the authority of the trustee institution to act as trustee; or

(iii) a suspension or revocation of the authority of the institution to issue a surety bond, a letter of credit, or an insurance policy.

(2) The owner or operator of a permitted used oil facility or operation must establish other financial responsibility or liability coverage within 60 days after such an event.

12.4 ANNUAL UPDATE OF CLOSURE COST ESTIMATE AND FINANCIAL ASSURANCE MECHANISM

(a) The financial responsibility information required by R315-15-10, 11, and 12 and submitted to the Director with the initial permit application for a used oil facility or operation, or information provided as part of subsequent modifications to the permit made thereafter, shall be updated annually.

(b) The following annual updated financial responsibility information for the previous calendar year shall be submitted to the Director by March 1 of each year for each permitted facility or operation:

(1) The cleanup and closure cost estimate shall be based on a third party performing cleanup and closure of the facility to a post-operational land use in accordance with R315-15-11.1.

(2) The financial assurance mechanism shall be adjusted to reflect the new cleanup and closure cost estimate.

(3) The type of financial assurance mechanism, its current face value, and corresponding financial institution's instrument control number shall be provided.

(4) The type of environmental pollution liability financial responsibility for third-party damage mechanism shall be provided, including:

(i) policy number or other mechanism control number,

(ii) effective date of policy or other mechanism, and

(iii) coverage types and amounts.

(5) The type of general liability insurance information shall be provided, including:

(i) policy number,

(ii) date of policy, effective date of policy, retroactive date of coverage, if applicable, and

(iii) coverage types and amounts.

(c) Other type of information deemed necessary to evaluate compliance with a permitted used oil facilities or operations and R315-15-10, 11, and 12, shall be provided upon request by the Director.

R315-15-13. Registration and Permitting of Used Oil Handlers.

13.1 DO-IT-YOURSELFER USED OIL COLLECTION CENTERS TYPES A AND B

(a) Applicability. A person may not operate a do-it-yourselfer (DIYer) Type A or B used oil collection center without holding a registration number issued by the Director.

(b) General. The application for a registration number shall include the following information regarding the DIYer used oil collection center:

(1) the name and address of the operator;

(2) the location of the center;

(3) the type of storage and secondary containment to be used;

(4) the status of the business, zoning, or other licenses and permits if required by federal, state and local governmental entities;

(5) a spill containment plan in the event of a release of used oil; and

(6) proof of insurance or other means of financial responsibility for liabilities that may be incurred in collecting or storing used oil.

(c) Waiver of proof of insurance or other means of financial responsibility for liabilities that may be incurred in collecting or storing used oil. In accordance with Utah Annotated 19-6-710, the Director may waive the requirement of proof of liability insurance or other means of financial responsibility if the following criteria are satisfied:

(1) The used oil storage tank or container is in good condition with no severe rusting, apparent structural defects or deterioration, and no visible leaks;

(2) There is adequate secondary containment for the tank or container that is impervious to used oil to prevent any used oil released into the secondary containment system from migrating out of the system to the soil, groundwater or surface water;

(3) The storage tank or container is clearly labeled with the words "Used Oil;"

(4) DIYer log entries are complete including the name and address of the generator, date and quantity of used oil received;

(5) EPA-approved test kits for total halogens are readily available and operators are trained to perform halogen tests on any used oil received that may have been mixed with hazardous waste; and

(6) Oil sorbent material is readily available on site for immediate clean-up of spills.

(d) Changes in information. The owner or operator of the facility shall notify the Director in writing of any changes in the information submitted to apply for a registration number within 20 days of the change.

13.2 GENERATOR USED OIL COLLECTION CENTERS TYPES C AND D

(a) Applicability. A person may not operate a generator used oil collection center Type C or D without holding a registration number issued by the Director.

(b) General. The application for registration shall include the following information regarding the generator used oil collection center:

(1) the name and address of the operator;

(2) the location of the center;

(3) whether the center will accept DIYer used oil;

(4) the type of storage and secondary containment to be used;

(5) the status of the business, zoning, or other licenses and permits if required by federal, state and local governmental entities;

(6) a spill containment plan in the event of a release of used oil; and

(7) proof of insurance or other means of financial responsibility for liabilities that may be incurred in collecting or storing used oil.

(c) Permit. Waiver of proof of insurance or other means of financial responsibility for liabilities that may be incurred in collecting or storing used oil. In accordance with Utah Code Annotated 19-6-710, the Director may waive the requirement of proof of liability insurance or other means of financial responsibility if the following criteria are satisfied:

(1) The used oil storage tank or container is in good condition with no severe rusting, apparent structural defects or deterioration, and no visible leaks;

(2) There is adequate secondary containment for the tank or container that is impervious to used oil to prevent any used oil released into the secondary containment system from migrating out of the system to the soil, groundwater or surface water;

(3) The storage tank or container is clearly labeled with the words "Used Oil;"

(4) DIYer log entries are complete including the name and address of the generator, date and quantity of used oil received;

(5) EPA-approved test kits for total halogens are readily available and operators are trained to perform halogen tests on any used oil received that may have been mixed with hazardous waste; and

(6) Oil sorbent material is readily available on site for immediate clean up of spills.

(d) Changes in information. The owner or operator of the facility shall notify the Director in writing of any changes in the information submitted to apply for a registration number within 20 days of the change.

13.3 USED OIL AGGREGATION POINTS

(a) Applicability. A person may operate a used oil aggregation point without holding a registration number issued by the Director unless that aggregation point also accepts used oil from household do-it-yourselfers (DIYers) or other generators.

(b) If an aggregation point accepts used oil from household DIYers, it must register with the Director as a DIYer collection center and comply with the DIYer standards in Section R315-15-3.1.

(c) If an aggregation point accepts used oil from other generators it must register with the Director as a generator collection center and comply with the standards in R315-15-3.2.

13.4 USED OIL TRANSPORTERS AND USED OIL TRANSFER FACILITIES

(a) Applicability. Except as provided by R315-15-13.4(f), a person may not operate as a used oil transporter without holding a used oil transporter permit issued by the Director. A person shall not operate a used oil transfer facility without holding a used oil transfer facility permit specific to that facility, issued by the Director.

(b) General. The application for a permit shall include the following information:

(1) The name and address of the operator;

(2) The location of the transporter's base of operations and the location of any transfer facilities, if applicable;

(3) Maps of all transfer facilities, if applicable;

(4) The methods to be used for collecting, storing, and delivering used oil;

(5) The methods to be used to determine if used oil received by the transporter or facility is on-specification or off-specification and how the transporter will comply with the rebuttable requirements of R315-15-4.5;

(6) The type of containment and the volume, including type and number of storage vessels to be used and the number and type of transportation vehicles, if applicable;

(7) The methods of disposing of any waste by-products;

(8) The status of business, zoning, and other applicable licenses and permits if required by federal, state, and local government entities;

(9) An emergency spill containment plan, including a list of spill containment equipment to be carried in vehicles used to transport used oil and spill containment equipment maintained at the used oil transfer facility, and how the transporter shall comply with the requirements of R315-15-9;

(10) Proof of liability insurance or other means of financial responsibility for liabilities that may be incurred in collecting, transporting, or storing used oil;

(11) Proof of form and amount of reclamation surety for any facility used in conjunction with transportation or storage of used oil;

(12) A closure plan meeting the requirements of R315-15-11;

(13) Proof of applicant's ownership of any property and facility used for storage of used oil or, if the property and facility is not owned by the applicant, the owners' written statement acknowledging the activities specified in the application;

(14) For transfer facility permit applications, tank certification in accordance with R315-264-190 through 200 for used oil storage tanks at the transfer facility;

(15) For transfer facility permit applications, a facility piping and instrument drawing certified by a Professional Engineer;

(16) If rail transport is part of the application, a loading/off-loading plan for rail tanker cars used to transport used oil. This plan shall include detailed procedures to be followed to minimize the potential for releases and on-site accidents. At a minimum, the following items shall be addressed:

(i) Personal safety equipment;

(ii) Coordination with railroad to ensure exclusive rights to the loading track during the entire period of loading/offloading;

(iii) A minimum number and qualification of workers involved in the loading or off-loading operations;

(iv) Braking and blocking of rail car wheels;

(v) Procedures for Depressurizing tank car prior to opening manhole covers and outlet valves;

(vi) The sequence of valve openings and closings on any hosing or piping involved in the loading or off-loading process,

(vii) A description of how and where pipe and hose fitting will be attached, including a description of which rail car valves/openings will be used;

(viii) Use of catchment container to collect any used oil released from hoses, valves, and pipes during and following the loading/offloading operation;

(ix) Measures to insure ignition sources are not present;

(x) Procedures for cleanup of any spills that occur during the loading/offloading operations; and

(xi) Other site-specific requirements required by the Director to protect human health and the environment.

(c) Permit fees. Registration and permitting fees are established under the terms and conditions of Utah Code Annotated 63J-1-504. A copy of the Division's Fee Schedule is available upon request. Payment of appropriate fees is required prior to issuance of permit approvals and annual used oil handler certificates.

(d) Annual Reporting. Each transporter and transfer facility shall submit an annual report to the Director of its activities during the calendar year. The annual report shall be submitted to the Director no later than March 1, of the year following the reported activities. The Annual report shall either be submitted on a form provided by the Director or shall contain the following information:

(1) the EPA identification number, name, and address of the transporter/transfer facility;

(2) the calendar year covered by the report;

(3) the total amount of used oil transported;

(4) the itemized amounts and types of used oil transferred to permitted transporters and transfer facilities, used oil processors/re-refiners, off-specification used oil burners, and used oil fuel marketers; and

(5) the itemized amounts and types of used oil transferred inside and outside the state, indicating the state to which used oil is transferred, and the specific name, address and telephone number of the operations or facility to which used oil was transferred.

(e) Changes in information. The owner or operator of the facility shall notify the Director in writing of any changes in the information submitted to apply for a permit within 20 days of the change.

(f) Transporter and Transfer Facility Permit by rule. Notwithstanding any other provisions of R315-15-13.4, a used oil generator who self-transports used oil generated by that generator at a non-contiguous operation to a central collection facility in the generator's own service vehicles in quantities exceeding 55 gallons shall be deemed to have an approved used oil transporter permit or used oil transfer facility permits, or both if the generator meets all applicable requirements of R315-15-13.4(f)(1) through (4).

(1) All used oil transporters or transfer facilities who qualify for a permit by rule shall submit a notification to the Director of their intent to operate under R315-15-13.4(f) and comply with the following conditions:

(i) The generator's facility is defined under the North American Industry Classification System (NAICS), published, in 2017 Revision, by the US Economic Classification Policy Committee, with a NAICS code of 21 (Mining), 22 (Utilities), 23 (Construction), 485111 (Mixed Mode Transit Systems), or 541360 (Geophysical Surveying and Mapping Services);

(ii) The generator self-transports and delivers the used oil to facilities that the generator owns, operates, or both.

(iii) The generator notifies the Director with the information required by R315-15-13.4(b)(1) through (10); and

(iv) The generator complies with R315-15-4.3, R315-15-4.4(b) through (d), R315-15-4.6(b) through (f), R315-15-4.7(b) and (d), and R315-15-4.8.

(2) A generator who self-transports used oil in accordance with R315-15-13.4(f)(1)and who burns all the collected used oil for energy recovery is deemed to be approved by rule to operate as a used oil transporter for that activity if the following additional conditions are met:

(i) The generator only burns the self-collected used oil for energy recovery at that generator's own central collection facility.

(ii) The generator registers as a used oil fuel marketer in accordance with R315-15-13.7 and complies with R315-15-7.

(3) A generator who self-transports used oil in accordance with R315-15-13.4(f)(1) and only stores the used oil for subsequent collection by permitted used oil transporters is deemed to be approved by rule to operate as a used oil transporter and transfer facility for that activity if the following additional conditions are met:

(i) The generator arranges for permitted used oil transporters to collect the generator's used oil.

(ii) The self-transported used oil is not stored at the generator's facility longer than 35 days. If the self-transported used oil is stored longer than 35 days, the generator becomes a used oil processor in accordance with R315-15-4.6(a) and shall obtain a used oil processor permit in accordance with R315-15-13.5.

(4) A generator who self-transports used oil in accordance with R315-15-13.4(f)(1), and who both burns their collected used oil for energy recovery and arranges for permitted use oil transporters to collect that used oil, is deemed to be approved by rule to operate as a used oil transporter and transfer facility for that activity if the following additional conditions are met:

(i) The self-transported used oil burned for energy recovery is only burned at the generator's central collection facility;

(ii) The generator registers as a used oil fuel marketer in accordance with R315-15-13.7 and complies with R315-15-7; and

(iii) The generator arranges for permitted used oil transporters to collect the generator's used oil not burned on site.

(iv) The self-transported used oil is not stored at the generator's facility longer than 35 days. If the self-transported used oil is stored longer than 35 days, the generator becomes a used oil processor in accordance with R315-15-4.6(a) and shall obtain a used oil processor permit in accordance with R315-15-13.5.

(g) All used oil transporters and transfer facilities shall obtain and maintain a used oil handler certificates in accordance with R315-15-13.8.

13.5 USED OIL PROCESSORS/RE-REFINERS

(a) Applicability. A person may not operate as a used oil processing/re-refining facility without holding a permit issued by the Director.

(b) General. The application for a permit shall include the following information:

(1) The name and address of the operator;

(2) The location of the facility;

(3) A map of the facility;

(4) The grades of oil to be produced;

(5) The methods to be used to determine if used oil received by the transporter or facility is on-specification or off-specification;

(6) The type of containment and the volume, including type and number of storage vessels to be used and the number and type of transportation vehicles, if applicable;

(7) The methods of disposing of any waste by-products;

(8) The status of business, zoning, and other applicable licenses and permits if required by federal, state, and local government entities;

(9) An emergency spill containment plan, including a list of spill containment equipment to be maintained at the used oil processor facility;

(10) Proof of liability insurance or other means of financial responsibility for liabilities that may be incurred in processing or rerefining used oil;

(11) Proof of form and amount of reclamation surety for any facility used in conjunction with transportation or storage of used oil;

(12) Any other information the Director finds necessary to ensure the safe handling of used oil;

(13) A closure plan meeting the requirements of R315-15-11.

(14) A contingency plan meeting the requirements of R315-15-5.3(b);

(15) Proof of applicant's ownership of the property and facility or, if the property and facility is not owned by the applicant, the owner's written statement acknowledging the activities specified in the application;

(16) Tank certification in accordance with R315-264-190 through 200 for used oil storage tanks at the processor facility; and

(17) A facility piping and instrument drawing certified by a Professional Engineer.

(c) Permit fees. Registration and permitting fees are established under the terms and conditions of Department fee schedule 63J-1-504. A copy of the Division's Fee Schedule is available upon request. Payment of appropriate fees is required prior to issuance of permit approvals and annual used oil handler certificates.

(d) Annual Reporting. Each used oil processing or rerefining facility shall submit an annual report to the Director of its activities during the calendar year. The annual report shall be submitted to the Director no later than March 1 of the year following the reported activities. The annual report shall either be submitted on a form provided by the Director or shall contain the following information:

(1) the EPA identification number, name, and address of the processor/re-refiner facility;

(2) the calendar year covered by the report;

(3) the quantities of used oil accepted for processing/rerefining and the manner in which the used oil is processed/rerefined, including the specific processes employed;

(4) the average daily quantities of used oil processed at the beginning and end of the reporting period;

(5) an itemization of the total amounts of used oil processed or rerefined during the reporting period year specifying the type and amounts of products produced, i.e., lubricating oil, fuel oil, etc.; and

(6) the amounts of used oil prepared for reuse as a lubricating oil, as a fuel, and for other uses, specifying each type of use, the amounts of used oil consumed or used in the process of preparing used oil for reuse, specifying the amounts and types of waste by-products generated including waste, water, and the methods and specific locations utilized for disposal.

(e) Changes in information. The owner or operator of the facility shall notify the Director in writing of any changes in the information submitted to apply for a permit within 20 days of the change.

(f) Used oil processors and re-refiners shall obtain and maintain a current used oil handler certificate in accordance with R315-15-13.8.

13.6 USED OIL BURNERS

(a) On-specification used oil fuel burners. Facilities burning only on-specification used oil fuel are not required to register as used oil burners with the Director for the purpose of R315-15-13.6, if they hold a valid air quality operating order or are exempt under R315-15-2.4.

(b) Off-specification used oil fuel burners

(1) Applicability. The permitting requirements of this section apply to used oil burners who burn off-specification used oil for energy recovery except as specified in R315-15-6.1(a)(1) through (3). A person may not burn off-specification used oil fuel for energy recovery without holding a permit issued by the Director.

(2) Permit application. The application for a permit shall include the following information regarding the facility:

(i) The name and address of the operator;

(ii) The location of the facility;

(iii) The type of containment and type and capacity of storage;

(iv) The type of burner to be used;

(v) The methods of disposing of any waste by-products;

(vi) The status of business, zoning, and other applicable licenses and permits required by federal, state, and local governmental entities;

(vii) An emergency spill containment plan; including a list of spill containment equipment to be maintained at the used oil processor facility.

(viii) Proof of insurance or other means of financial responsibility for liabilities that may be incurred in storing and burning off-specification used oil fuels.

(ix) Proof of form and amount of reclamation surety for any facility receiving and burning off-specification used oil.

(x) A closure plan meeting the requirements of R315-15-11;

(xi) Proof of applicant's ownership of the property and facility or, if the property and facility is not owned by the applicant, the owner's written statement acknowledging the activities specified in the application;

(xii) Tank certification in accordance with R315-264-190 through 200 for used oil storage tanks at the processor facility; and

(xiii) A facility piping and instrument drawing certified by a Professional Engineer.

(3) Permit fees. Registration and permitting fees are established under the terms and conditions of Utah Code Annotated 63J-1-504. A copy of the Division's Fee Schedule is available upon request. Payment of appropriate fees is required prior to issuance of permit approvals and annual used oil handler certificates.

(4) Changes in information. The owner or operator of the facility shall notify the Director in writing of any changes in the information submitted during permit application within 20 days of the change.

(5) Permits by rule. Any facility permitted by rule is not required to obtain a permit as required by R315-15-13.6(b)(1), but may be required to follow operational practices, as determined by the Director, to minimize risk to human health or the environment. A permit by rule is conditional upon continued compliance with the requirements of R315-15-13.6(b), as determined by the Director. Notwithstanding any other provisions of R315-15-13.6, a hazardous waste incinerator facility that has been issued a final permit under R315-270-1, and that implements the requirements of R315-264-340 through 351, shall be deemed to have an approved off-specification used oil burner permit if that facility meets all of the following conditions:

(i) It burns off-specification used oil only in devices specified in R315-15-6.2(a);

(ii) It stores used oil in the manner described in R315-15-6.5;

(iii) It tracks off-specification used oil shipments as described in R315-15-6.6;

(iv) It complies with R315-15-6.3 and R315-15-6.7;

(v) It modifies its closure plan required under R315-264-110 through 120 (Closure and Post Closure), to include used oil storage and burning devices, taking into account any used oil activities at this facility;

(vi) It modifies its financial mechanism or mechanisms required R315-264-140 Through 151 (Financial Requirements), using a mechanism other than a corporate financial test/corporate written guarantee, to reflect the used oil activities at the facility; and

(vii) It submits to the Director the information required by R315-15-13.6(b)(2)(i) through (vi), and a one-time declaration that the facility intends to burn off-specification used oil.

(6) Annual Reporting. Each off-specification used oil burner, including those permitted by rule under R315-15-13.6(b)(5), shall submit an annual report to the Director of their activities during the calendar year. The annual report shall be submitted to the Director no later than March 1, of the year following the reported activities. The annual report shall either be submitted on a form provided by the Director or shall contain the following information:

(i) The EPA identification number, name, and address of the burner facility;

(ii) The calendar year covered by the report; and

(iii) The total amount of used oil burned.

(c) Off-specification used oil burners shall obtain and maintain a current used oil handler certificate in accordance with R315-15-13.8.

13.7 USED OIL FUEL MARKETERS

(a) Applicability. A person may not act as a used oil fuel marketer, as defined in R315-15-7, without holding a registration number issued by the Director.

(b) General. The application for a registration number shall include the following information regarding the facility acting as a used oil fuel marketer:

(1) The name and address of the marketer.

(2) The location of any facilities used by the marketer to collect, transport, process, or store used oil subject to separate permits, or registrations under this section.

(3) The status of business, zoning, and other applicable licenses and permits required by federal, state, and local governmental entities, including registrations or permits required under this part to collect, process/re-refine, transport, or store used oil.

(4) Sampling and Analysis Plan. Marketers shall develop and follow a written analysis plan describing the procedures that will be used to comply with the analysis requirements of R315-15, including the applicable portions of R315-15-1.2, R315-15-5.4, R315-15-7.3, and R315-15-18. The owner or operator shall keep the plan at the facility. The plan shall address at a minimum the following:

(i) Specification used oil fuel. The analysis plan shall describe how the marketer will comply with R315-15-1.2, R315-15-5.6, and R315-15-7.3, as applicable.

(ii) Analytical methods. The plan shall specify the preparation and analytical methods for each parameter.

(iii) PCBs. The analysis plan shall describe how the marketer will comply with R315-15-18.

(iv) Generator knowledge. The plan shall describe the requirements for generator knowledge, if applicable.

(v) Sample Quality Control. The plan shall specify the quality control parameters and acceptance limits.

(vi) Rebuttable presumption for used oil. The analysis plan shall describe how the marketer will comply with R315-15-1.1(b)(ii) and R315-15-5.4, if applicable.

(vii) Sampling. The analysis plan shall describe the sampling protocol used to obtain representative samples, including:

(A) Sampling methods. The marketer shall use one of the sampling methods in R315-261 Appendix I, or a method shown to be equivalent under R315-260-21.

(B) Sample frequency. The plan shall specify the frequency of sampling to be performed, and whether the analysis will be performed on site or off site.

(c) Registration fees. Registration and permitting fees are established under the terms and conditions of Utah Code Annotated 63J-1-504. A copy of the Division's Fee Schedule is available upon request. Payment of appropriate fees is required prior to issuance of registration numbers and annual used oil handler certificates.

(d) A person who acts as used oil fuel marketer shall annually obtain a used oil handler certificate in accordance with R315-15-13.8. A used oil fuel marketer shall not operate without a used oil handler certificate.

(e) Changes in information. The owner or operator of the facility shall notify the Director in writing of any changes in the information submitted to apply for a registration within 20 days of the change.

13.8 USED OIL HANDLER CERTIFICATES

(a) Applicability. As well as obtaining permits and registration described in R315-15-13.4 through 13.7, a person shall not act as a used oil transporter, operator of a transfer facility, processor/re-refiner, off-specification burner, or marketer without applying for, receiving, and maintaining a current used oil handler certificate issued by the Director for each applicable activity. Each used oil permit and marketer registration described in R315-15-13.4 through 13.7 above requires a separate used oil handler certificate.

(b) General. Each application for a used oil handler certificate shall include the following information:

(1) business name;

(2) address to include:

(i) mailing address; and

(ii) site address if different from mailing address

(3) telephone number

(4) name of business owner;

(5) name of business operator;

(6) permit/registration number; and

(7) type of permit/registration number (i.e., processor, transporter, transfer facility, off-specification burner, or marketer).

(c) Changes in information. A used oil handler certificate holder shall notify the Director of any changes in the information provided in Subsection R315-15-13.8(b) within 20 days of implementation of the change.

(d) A used oil handler certificate will be issued to an applicant following the:

(1) completion and approval of the application required by R315-15-13.8(a); and

(2) payment of the fee required by the Annual Appropriations Act.

(e) A used oil handler certificate is not transferable and shall be valid January 1 through December 31 of the year issued. The certificate shall become void if the permit or registration associated with the used oil activity described in the certificate, in accordance with R315-15-13.8(b)(6) in the application, is revoked under R315-15-15.2 or if the Director, upon the written request of the permittee or registration holder, cancels the certificate.

(f) The certificate registration fee shall be paid prior to operation within any calendar year.

R315-15-14. DIYer Reimbursement.

14.1 DIYER USED OIL COLLECTION CENTER INCENTIVE PAYMENT APPLICABILITY

(a) The Director shall pay a semi-annual recycling fee incentive to registered DIYer used oil collection centers and curbside programs approved by the Director for each gallon of used oil collected from DIYer used oil generators, and transported by a permitted used oil transporter to a permitted used oil processor, re-refiner, burner, or registered marketer or burned in accordance with Subsection R315-15-2.4(b).

(b) All registered DIYer used oil collection centers can qualify for a recycling incentive payment of up to $0.25 per gallon, subject to availability of funds and the priorities in accordance with Section19-6-720.

14.2 REIMBURSEMENT PROCEDURES

In order for DIYer collection centers to qualify for the recycling incentive payment they are required to comply with the following procedures.

(a) Submit an original document or a legible copy, photographs of documents are not acceptable, of any records of DIYer and farmer, meeting the requirements of Subsection R315-15-2.1(a)(4), used oil collected during the semi-annual collection periods of January through June and July through December for which the reimbursement is requested. These records shall be submitted within 30 days following the end of the semi-annual collection period.

(b) Reimbursements will be issued by the Director within 30 days following the report filing period.

(c) Reports received later than 60 days after the end of the semi-annual collection period for which reimbursement is requested will be paid during the next reimbursement period.

(d) Any reimbursement requests outside the timeframe in accordance with Subsection R315-15-14.2(a) will not be granted unless approved by the Director.

R315-15-15. Issuance, Renewal, and Revocation of Permits and Registrations.

15.1 PUBLIC COMMENTS AND HEARING.

(a) The Director shall:

(1) determine if the permit application or modification request is complete and meets all requirements of R315-15-13;

(2) publish notice of the proposed permit in a newspaper of general circulation in the state and also in a newspaper of general circulation in the county in which the proposed permitted facility is located;

(3) provide a 15-day public comment period from the date of publication to allow the public time to submit written comments;

(4) consider submitted public comments received within the comment period; and

(5) send a written decision to the applicant and to persons submitting comments,

(b) The Director's decision under R315-15-15.1(a) may be appealed in accordance with Utah Administrative Code R305-7.

(c) Duration of Permits. Used oil permits shall be effective for a fixed term not to exceed ten years. Any Permittee holding a permit issued on or before January 1, 2005 who wants to continue operating shall submit an application for a new permit not later than 180 days after January 1, 2015. The term of a permit shall not be extended by modification to the permit.

(d) The conditions of an expired permit continue in force until the effective date of a new permit if:

(1) The permittee has submitted a timely application under R315-15-13, at least 180 days prior to the expiration date of the current permit. The permit application shall contain all the materials required by R315-15-13.

(2) The Director, through no fault of the permittee, does not issue a new permit with an effective date on or before the expiration date of the previous permit (for example, when issuance is impracticable due to time or resource constraints).

(e) Effect. Permits continued under this section remain fully effective and enforceable.

(f) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit, the Director may choose to do any or all of the following;

(1) Initiate enforcement action based upon the permit that has been continued;

(2) Issue a notice of intent to deny the new permit under R315-15-15.2. If the permit is denied, the owner or operator is required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) Issue a new permit under R315-15-15.2 with appropriate conditions;

(4) Take other actions authorized by these rules

(g) Five-Year Review of Permit. Each used oil permit, including the costs of closure and post closure care issued under R315-15-13, shall be reviewed by the Director five years after the permit's issuance, or when the Director determines that a permit requires review and modification.

15.2 MODIFICATION AND REVOCATION OF PERMITS, REGISTRATIONS AND HANDLER CERTIFICATES.

(a) A permit may be considered for modification, renewal, or termination at the request of any interested person, including the permittee, or upon the Director's initiative as a result of new information or changes in statues or rules. Requests for modification, reissuance, or termination shall be submitted in writing to the Director and shall contain facts or reasons supporting the request. The permit modification requests shall not be implemented until approval of the Director.

Violation of any permit or registration conditions or failure to comply with any provisions of the applicable statutes and rules, shall be grounds for imposing statutory sanctions, including denial of an application for permit, registration, or used oil handler certificate.

(b) Request for agency action. The owner or operator of a facility may contest an order associated with modification, renewal, or termination in accordance with Utah Administrative Code R305-7.

R315-15-16. Grants.

16.1 STATUTORY AUTHORITY.

Utah Code Annotated 19-6-720 authorizes the Division of Waste Management and Radiation Control to award grants, as funds are available, for the following:

(a) used oil collection centers;

(b) used oil collection events;

(c) curbside used oil collection programs, including costs of retrofitting trucks, curbside containers, and other costs of collection programs; and

(d) public education programs and outreach.

16.2 ELIGIBILITY AND APPLICATION.

(a) The establishment of new or the enhancement of existing used oil collection centers or curbside collection programs that address the proper management of used lubricating oil may be eligible for grant assistance.

(b) A used oil recycling block grant application package, made available by the director, shall be completed and submitted to the director for consideration.

16.3 LIMITATIONS.

(a) The grantee shall commit to perform the permitted used oil handling activity for a minimum of two years.

(b) If the two-year commitment is not fulfilled, the grantee may be required to repay the full grant amount or a portion of the grant amount.

16.4 USED OIL TRANSPORTATION COSTS FROM USED OIL COLLECTION CENTERS

(a) Grant funds may be used for costs for a permitted used oil transporter to collect and transport used oil from a used oil collection center (UOCC) located within a rural area that meets the following criteria:

(1) accepts only:

(i) DIYER used oil, Type A UOCC; or

(ii) both DIYER and farmer used oil, Type B UOCC;

(2) is located in a Class 4 municipality, as described in Section 10-2-301, or in an area with a population less than that of a Class 4 municipality;

(3) stays active with the Used Oil Program for at least two years after receiving the grant or the grant funds shall be reimbursed;

(4) completes a grant application that is signed by the owner of the collection center; and

(5) gets a minimum of one transportation bid from a permitted used oil transporter in accordance with Section R33-105-104.

(b) Grant funds may be used for costs for a permitted used oil transporter to collect and transport used oil from a Type C Used Oil Collection Center if the UOCC meets the following criteria:

(1) is a Utah municipal landfill that is registered as a Type C used oil collection center with the Division of Waste Management and Radiation Control;

(2) only allows small businesses that qualify as a Very Small Quantity Generator (VSQGs) of hazardous waste, to deliver used oil in a volume of less than 55 gallons per visit per day; and

(3) one transportation bid from a permitted used oil transporter is submitted for requests less than $1,000.00, or three bids if over $1,000.00.

(c) Grant funds may be considered for costs for a permitted used oil transporter to collect and transport used oil from a Used Oil Collection Center that does not meet the criteria outlined in Subsection R315-15-16.4(a) or R315-15-16.4(b) on a case-by-case basis.

16.5 FUNDING

(a) An applicant is not required to provide matching funds.

(b) The director may withhold 10% of the funds from a grant recipient until the grant is completed and the final documentation submitted.

(c) The director may approve a request for advance payment based upon justification offered by the applicant.

(d) A grant application shall include the bids for expenses to be paid by the grant in accordance with Rule R33-105.

16.6 APPLICATION CONTENTS

(a) A grant application form is part of the grant application package available from the director and consists of the following sections:

(1) applicant information that shall include basic information regarding the applicant and the individual or entity responsible for the project implementation;

(2) used oil project request for funding that shall include the following:

(i) background information that shall include a description of:

(A) the absence or existence of used oil collection opportunities in the area to be served by the used oil project; and

(B) the population of the proposed project area;

(ii) project description and goals; and

(iii) funding sources;

(3) project budget that may include a cost breakdown of the following categories:

(i) used oil transportation and disposal expenses;

(ii) contractor or consultant expenses;

(iii) construction expenses;
(iv) equipment;
(v) materials and supplies; and
(vi) public education and outreach;
(4) eligibility summary that shall include, as applicable, the following information for each:
(i) used oil collection center:
(A) name of the facility;
(B) physical address; and
(C) phone number; and
(ii) curbside collection program:
(A) name, address, and phone number of the program operator;
(B) number of residents served by the program; and
(C) collection schedule; and
(5) certification statement and signature.

16.7 APPLICATION SUBMISSION

Applicants shall submit an original application using the application package of Subsection R315-15-16.2(b) to the director.

16.8 AUDIT REQUIREMENTS

(a) A grant may be subject to a desk or field audit.

(b) The grantee is responsible for maintaining source documents substantiating the expenditures claimed and shall make them available at the time of an audit.

(c) Records relating to the implemented program may include:
(1) expenditure ledger;
(2) paid warrants;
(3) contracts;
(4) change orders;
(5) invoices; and
(6) cancelled checks.

(d) Records shall be maintained for a period of three years from the date of final payment by the state.

16.9 ADMINISTRATIVE PROCEDURES

(a) A grantee shall submit a final report within one month of completion of the project or by a later date specified by the director. The report shall include the following information:
(1) a description of the completed used oil collection program, including any amendments;
(2) the estimated number of participants in the program;
(3) a description of the program's public education efforts;
(4) a description of measures taken to continue the program; and
(5) a complete and final itemization of how grant funds were expended.

16.10 FAILURE TO COMPLY

Failure to comply with the agreement requirements may result in the director terminating, suspending, or requiring the grantee to repay the grant or a portion of the grant.

16.11 GRANT PAYMENTS

(a) General Requirements.

(1) The director shall reimburse the grantee for performing only those services as specified in the grant application. Any deviations from the use of funds specified in the application shall be approved by the director before an expenditure for that item is made.

(2) Payment shall be made to the grantee only. It shall be the responsibility of the grantee to pay the contractors and subcontractors for purchased goods and services.

(3) The director may withhold and retain ten percent of the grant award until the grant is completed and the final documentation submitted.

(4) Requests for advance payment shall be submitted in writing to the director and demonstrate that the grantee will incur specific expenditures before or shortly after payment for the state. Suggested documentation includes:
(i) purchase orders; and
(ii) invoices.

(5) The director may partially or fully deny advance payment requests.

(b) Submittal of payment requests.

(1) Payment requests shall be submitted using the completed payment request form of the grant application package of Subsection R315-15-16.2(b) and signed by the individual authorized in the grant application.

(2) Payment requests shall include an itemization of the expenses by budget expense type.

(3) Payment requests shall include copies of documents supporting the claimed expenses, such as bids, receipts, canceled checks, and sole source justifications. Supporting documents shall contain sufficient information to establish purchases made or costs incurred. At a minimum, the documentation should include the name, amount, and date of purchase for the expense.

(4) Payment requests shall be submitted to the director.

16.12 RELEASE OF FUNDS

(a) The director shall review and approve each payment request before payment is made. The grantee shall meet the following conditions before the director shall process a payment request during the project term:
(1) the grantee has submitted any required project reports and the director has determined that they are satisfactory;
(2) the director has received copies of applicable contracts, or subcontracts, or both; and
(3) the grantee has received applicable permits or permit waivers from governmental agencies and the director has received copies of this documentation.

(b) After director approval, payment requests shall be forwarded to the Division of Finance for issuance of pay warrants.

(c) If ten percent of the total grant was previously withheld, the director shall release the remaining ten percent upon receipt and acceptance of the final report and final payment request.

16.13 GRANT CLOSEOUT

(a) The director shall close out the grant when it is determined that the applicable administrative actions and required work of the grant have been completed.

(b) Upon receipt of the final report, the director shall ensure the work has been completed and any unexpended funds are refunded to the state.

(c) The grantee's obligations under the Terms and Conditions of the grant application package of Subsection R315-15-16.2(b) shall be considered discharged only upon acceptance of the final report by the director.

(d) The grantee shall retain financial and project records, supporting documents, statistical records and other records of projects funded by this program. The director, or the director's authorized representative, shall have access to the related records during progress of the project and for at least three years after completion.

R315-15-17. Wording of Financial Assurance Mechanisms.

17.1 APPLICABILITY

R315-15-17 presents the standard wording forms to be used for the financial assurance mechanisms found in R315-15-12. The following forms are hereby incorporated by reference and are available at the Division of Waste Management and Radiation Control located at 195 North 1950 West, Salt Lake City, Utah, during normal business hours or on the Division's web site, http://www.hazardouswaste.utah.gov/.

(a) The Division requires that the forms described in R315-15-17.2 through R315-15-17.14 shall be used for all financial assurance filings and shall be signed original documents. The wording of the forms shall be identical to the wording specified in R315-15-17.2 through R315-15-17.14.

(b) The Director may substitute new wording for the wording found in any of the financial assurance mechanism forms when such language changes are necessary to conform to applicable financial industry changes, when industry-wide consensus language changes are submitted to the Director.

17.2 TRUST AGREEMENTS

The trust agreement for a trust fund must be worded as found in the Trust Agreement Form approved by the Director.

17.3 SURETY BOND GUARANTEEING PAYMENT INTO A STANDBY TRUST AGREEMENT TRUST FUND

The surety bond guaranteeing payment into a standby trust agreement trust fund must be worded as found in the Surety Bond Guaranteeing Payment into a Standby Trust Agreement Trust Fund Form approved by the Director.

17.4 IRREVOCABLE STANDBY LETTER OF CREDIT WITH STANDBY TRUST AGREEMENT

The letter of credit must be worded as found in the Irrevocable Standby Letter of Credit with Standby Trust Agreement Form approved by the Director.

17.5 UTAH USED OIL POLLUTION LIABILITY INSURANCE ENDORSEMENT FOR CLEANUP AND CLOSURE

The insurance endorsement of cleanup and closure must be worded as found in the Utah Used Oil Pollution Liability Insurance Endorsement for Cleanup and Closure Form approved by the Director.

17.6 UTAH USED OIL TRANSPORTER POLLUTION LIABILITY ENDORSEMENT FOR SUDDEN OCCURRENCE

The used oil transporter pollution liability endorsement for sudden occurrence must be worded as found in the Utah Used Oil Transporter Pollution Liability Endorsement for Sudden Occurrence Form approved by the Director.

17.7 UTAH USED OIL POLLUTION LIABILITY ENDORSEMENT FOR SUDDEN OCCURRENCE

The used oil pollution liability endorsement for sudden occurrence for permitted facilities other than permitted transporters must be worded as found in the Utah Used Oil Pollution Liability Endorsement for Sudden Occurrence Form approved by the Director.

17.8 UTAH USED OIL POLLUTION LIABILITY ENDORSEMENT FOR NON-SUDDEN OCCURRENCE

The used oil pollution liability endorsement for non-sudden occurrence must be worded as found in the Utah Used Oil Pollution Liability Endorsement Non-Sudden Occurrence Form approved by the Director.

17.9 UTAH USED OIL POLLUTION LIABILITY ENDORSEMENT FOR COMBINED SUDDEN AND NON-SUDDEN OCCURRENCES

The used oil pollution liability endorsement combined for sudden and non-sudden occurrence must be worded as found in the Utah Used Oil Pollution Liability Endorsement for Combined Sudden and Non-Sudden Occurrences Form approved by the Director.

17.10 LETTER OF CREDIT FOR THIRD-PARTY DAMAGES FROM ENVIRONMENTAL POLLUTION LIABILITY WITH OPTIONAL STANDBY TRUST AGREEMENT TO BE USED BY TRANSFER/PROCESSOR/RE-REFINER/OFF-SPECIFICATION BURNER FACILITY

The letter of credit must be worded as found in the Letter of Credit for Third Party Damages from Environmental Pollution Liability with Optional Standby Trust Agreement to be used by Transfer/Processor/Re-refiner/Off-specification Burner Facility Form approved by the Director.

17.11 PAYMENT BOND FOR THIRD-PARTY DAMAGES FROM ENVIRONMENTAL POLLUTION LIABILITY TO BE USED BY TRANSFER/PROCESSOR/RE-REFINER/OFF-SPECIFICATION BURNER FACILITY

A surety bond must be worded as found in the Payment Bond for Third Party Damages from Environmental Pollution Liability to be used by Transfer/Processor/Re-refiner/Off-specification burner Facility Form approved by the Director.

17.12 TRUST AGREEMENT FOR THIRD-PARTY DAMAGES FROM ENVIRONMENTAL POLLUTION LIABILITY TO BE USED BY TRANSFER/PROCESSOR/RE-REFINER/OFF-SPECIFICATION BURNER FACILITY

A trust agreement must be worded as found in the Trust Agreement for Third Party Damages from Environmental Pollution Liability to be used by Transfer/Processor/Re-refiner/Off-specification Burner Facility Form approved by the Director.

17.13 STANDBY TRUST AGREEMENT ASSOCIATED WITH THIRD-PARTY DAMAGES FROM ENVIRONMENTAL POLLUTION LIABILITY REQUIRING A STANDBY TRUST AGREEMENT TO BE USED BY TRANSFER/PROCESSOR/RE-REFINER/OFF-SPECIFICATION BURNER FACILITY

A standby trust agreement must be worded as found in the Standby Trust Agreement Associated with Third Party Damages from Environmental Pollution Liability Requiring Standby Trust Agreement to be used by Transfer/Processor/Re-refiner/Off-specification Burner Facility Form approved by the Director.

17.14 STANDBY TRUST AGREEMENT, OTHER THAN LIABILITY, FOR TRANSFER/PROCESSOR/RE-REFINER/OFF-SPECIFICATION BURNER FACILITY

The standby trust agreement for a trust fund must be worded as found in the Standby Trust Agreement, other than Liability for Transfer/Processor/Re-refiner/Off-specification Burner Facility Form approved by the Director.

R315-15-18. Polychlorinated Biphenyls (PCBs).

(a) Used oil containing polychlorinated biphenyl (PCB) concentrations of 50 ppm and above is subject to TSCA regulations in 40 CFR 761. Used oil containing PCB concentrations greater than or equal to 2 ppm but less than 50 ppm is subject to both R315-15 and 40 CFR 761.

(b) Used oil transporter PCB testing. Used oil transporters shall determine the PCB content of used oil being transported is less than 50 ppm prior to transferring the oil into the transporter's vehicles. The transporter shall make this determination as follows:

(1) Used dielectric oil. Dielectric oil used in transformers and other high voltage devices shall be certified to be less than 50 ppm prior to loading to the transporter's vehicle through laboratory testing following the procedures described in R315-15-18(d).

(2) Other used oils shall be certified to be less than 50 ppm prior to transfer through either:

(A) Laboratory testing following the procedures described in R315-15-18(d) below, or

(B) Written certification from the generator that the PCB content of the used oil is less than 50 ppm based on manufacturing specifications and process knowledge.

(c) Used oil marketer PCB testing. To ensure that used oil destined to be burned for energy recovery is not a regulated waste under the TSCA regulations, used oil fuel marketers shall determine whether the PCB content of used oil being burned for energy recovery is below 2 ppm. A marketer shall make this determination in a manner consistent with the used oil marketer's sampling and analysis plan.

(d) Laboratory testing for PCBs. Used oil testing for total PCBs shall include the following Aroclors: 1016, 1221, 1232, 1242, 1248, 1254, and 1260. If plasticizers (used in polyvinyl chloride plastic, neoprene, chlorinated rubbers, laminating adhesives, sealants and caulk and joint compounds etc.) are present, then the used oil shall also be analyzed for Aroclors 1262 and 1268. If other Aroclors are known or suspected to be present, then the used oil shall be analyzed for those additional Aroclors.

(e) The following Utah Certified Laboratory SW-846 methodologies shall be used for PCBs:

(1) Preparation method 3580A, clean up method 3665A, and analytical method 8082A.

(2) Individual Aroclors shall be reported with a reporting limit of 1 ppm or less.

(3) If the source of the PCBs is known to be an Aroclor, and the Aroclor is unlikely to be significantly altered in homologue composition such as weathering, Aroclors listed in R315-15-18(d) shall be reported. Analytical results from all 209 individual congeners or ten homologue groups shall be submitted for any sample that has an altered homologue composition such as weathering unless prior approval is obtained from the Director.

KEY: grants, registration, recycling, used oil
Date of Last Change: May 16, 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-704; 19-6-720

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-17**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-17. End of Life Automotive Mercury Switch Removal Standards.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-1003	During the 2006 General Session of the Utah State Legislature passed House Bill 138 which created the Mercury Switch Removal Act. This act created Part 10 of Title 19, Chapter 6 of the Utah Code. Section 19-6-1003 requires the Waste Management and Radiation Control Board make rules governing the administration of the act.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments were received from any interested persons either supporting or opposing the rule during or since the last five-year review.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
R315-17 contains the rules that provide for the administration of the Mercury Switch Removal Act. The Mercury Switch Removal Act and these rules require the removal of mercury switches from vehicles that have reached the end of their useful life to prevent the release of this toxic material into the environment where it could have a detrimental effect on people's health.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-17. End of Life Automotive Mercury Switch Removal Standards.
R315-17-1. Purpose.

(a) The purpose of this rule is to provide for the administration of the Mercury Switch Removal Act, Utah Code Annotated 19-6-1001, et seq.

(b) The Mercury Switch Removal Act and this Rule require the removal of mercury switches from vehicles that have reached the end of their useful life.

R315-17-2. Applicability.

This rule applies to:

(a) manufacturers of vehicles sold in the State of Utah;

(b) vehicles that may contain one or more mercury switches;

(c) mercury switches; and

(d) persons removing mercury switches from vehicles.

R315-17-3. Definitions.

Terms used in this rule are defined in Utah Code Annotated 19-6-1002.

R315-17-4. Mercury Switch Collection Plan.

(a) Manufacturers of any vehicle sold within the State of Utah shall submit a plan individually or in cooperation with other manufacturers to the Director for review and approval by January 15, 2007. This submission shall be accompanied by a filing fee as established by the legislature in the Department of Environmental Quality fee schedule. The Director shall bill the responsible party for review of plans submitted to meet the requirements of this Rule.

(b) The Director shall review and approve or disapprove the submitted plan based on the requirements outlined in R315-7-17-4(d). If the plan is not approved, the Director shall provide comments to the manufacturer within 60 days of submission of the plan. The manufacturer shall address all comments from the Director and submit an amended plan within 90 days after the Director provides comments on the unapproved plan.

(c) A manufacturer shall ensure that plan implementation occurs by July 1, 2007.

(d) The mercury switch collection plan shall include:

(1) The make, model, and year of any vehicle, including current and anticipated future production models, sold by a manufacturer that may contain one or more mercury switches;

(2) The description and location of each mercury switch for each make, model, and year of vehicle;

(3) Procedures for the prompt reimbursement by a manufacturer of costs incurred by a person removing and collecting mercury switches without regard to the date on which the mercury switch is removed and collected;

(4) Information addressing safe and environmentally sound methods for mercury switch removal and information about hazards related to mercury and the proper handling of mercury;

(5) Methods for the storage and disposal of mercury switches, including packaging and shipping of mercury switches to an authorized recycling, storage, or disposal facility; and

(6) Procedures for the transfer of information among persons involved with the plan to comply with reporting requirements.

(e) If a manufacturer does not know or is uncertain about whether or not a switch contains mercury, the plan shall presume that the switch contains mercury.

R315-17-5. Mercury Switch Removal Costs.

(a) Manufacturers shall implement procedures for the prompt reimbursement of costs incurred by a person removing and collecting mercury switches without regard to the date on which the mercury switch is removed and collected.

(b) To ensure that the costs of removal and collection of mercury switches are not borne by any other person, the manufacturers of vehicles sold in the state shall pay:

(1) A minimum of $5 for each mercury switch removed by a person as partial compensation for the labor and other costs incurred in removing the mercury switch;

(2) The cost of packaging necessary to store or transport mercury switches to recycling, storage, or disposal facilities;

(3) The cost of shipping mercury switches to recycling, storage, or disposal facilities;

(4) The cost of recycling, storage, or disposal of mercury switches;

(5) The cost of the preparation and distribution of educational materials; and

(6) The cost of maintaining all appropriate record keeping systems.

R315-17-6. Public Participation.

The Director shall also provide public notice, a public comment period, and public hearing(s) for each proposed Mercury Switch Collection Plan in accordance with R315-4-1.10 through R315-4-1.12 and R315-4-1.17.

R315-17-7. Plan Amendments.

The Director may require a manufacturer to modify the plan at any time upon finding that an approved plan as implemented has failed to meet the requirements of this rule.

R315-17-8. Reporting Requirements.

(a) Each manufacturer that is required to implement a mercury switch collection plan shall submit, either individually or in cooperation with other manufacturers, an annual report on the plan's implementation to the Director by October 1 of each year, beginning in 2008.

(b) The annual report shall include:

(1) The number of mercury switches collected;

(2) The number of mercury switches for which the manufacturer has provided reimbursement;

(3) A description of the successes and failures of the plan;

(4) A discussion of how the failures of the plan have been or will be corrected; and

(5) A statement detailing the costs required to implement the plan.

R315-17-9. Penalties.

In accordance with 19-6-1006, a manufacturer who fails to submit, modify, or implement a plan according to R315 may be subject to a civil penalty of not more than $1,000 per day per violation.

R315-17-10. Administrative Proceedings.

Administrative proceedings under the Mercury Switch Removal Act and this Rule shall be conducted in accordance with R315-12.

KEY: hazardous waste
Date of Enactment or Last Substantive Amendment: April 25, 2013
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 9-6-1003

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-101**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:

R315-101. Cleanup Action and Risk-Based Closure Standards.

3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:

Section 19-6-105	Subsection 19-6-105(1)(d) allows the Waste Management and Radiation Control Board to make rules requiring owners or operators of a treatment, storage, or disposal facilities to take appropriate corrective action or other response measures for releases of hazardous waste or hazardous waste constituents.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.

4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:

In November of 2021 proposed amendments to this rule were published in the Utah State Bulletin and a public comment period was opened. The purpose of the rule amendments was to update the rule to include the most up-to-date methods and procedures being used by industry to conduct cleanups of contaminated sites and risk assessments based on EPA guidance. The division received comments on the proposed amendments from several stakeholders. Based on the comments the Division held a stakeholders outreach meeting to discuss the proposed amendments with stakeholders.
As this is a technical and complex rule many of the comments suggested technical changes and removal of duplicate or conflicting language. Other comments suggested removing guidance documents incorporated into the rule or changing the incorporation language to incorporate the current guidance without specific dates. Some comments requested more flexibility in the rule and longer time periods for submission of plans. Based on the comments changes were made to the amendments.
In October of 2022 the revised, amended rule was published in the Utah State Bulletin and a public comment period was opened. During the public comment period comments were received from one stakeholder. The comments were similar to those received during the first public comment period. Based on the comments changes were made to the amendments.
In February of 2023 a notice of change in a proposed rule was published in the Utah State Bulletin re-opening the public comment period only for those parts of the rule that were changed. The Division did not receive any additional comments, and the amended rule was made effective on March 15, 2023.

5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:

R315-101 contains the rules that allow the Division to establish requirements for risk-based cleanup and closure standards at sites for which remediation or removal of hazardous constituents to background levels will not be achieved. The procedures in this rule also provide for continued management of sites for which minimal risk-based standards cannot be met. Without this rule there would not be any requirements or standards for risk-based cleanup and closure which would result in detrimental

impacts to human health and the environment and therefore, this rule should be continued.

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-101. Cleanup Action and Risk-Based Closure Standards.
R315-101-1. Purpose, Applicability.

(a) Purpose. Rule R315-101 establishes information requirements to support risk-based cleanup and closure standards at sites for which remediation, including removal of hazardous constituents to background levels is not the remediation objective. The procedures in Rule R315-101 also provide for continued management of sites for which risk-based clean closure standards are not met.

(b) Applicability.

(1) Rule R315-101 applies to any responsible party, or other interested party on a voluntary basis, such as a prospective purchaser, a lending institution, or land developer, involved in management of a site contaminated with hazardous waste, hazardous constituents, or other contaminants, as determined by the director. Rule R315-101 does not apply to a site that has been or will be cleaned to background levels of constituents.

(2) In the event of a release of hazardous waste or material that, when released, becomes a hazardous waste, the requirements of Rule R315-101 apply if the responsible party fails to clean up the released material and any residue or contaminated soil, water, or other material resulting from the release, as required by Section R315-263-31. The requirements of Section R315-263-31 shall be considered met if:

(i) the level of cumulative risk present at the site is less than or equal to 1×10^{-6} for carcinogens and the hazard index is less than or equal to one for non-carcinogens based on a risk assessment conducted assuming the land use exposure scenario defined in Subsection R315-101-5(g)(1);

(ii) the director determines that ecological effects are insignificant based on the approved assessment conducted in accordance with Subsection R315-101-5(j); and

(iii) the director determines that current and potential future impacts to groundwater are insignificant in accordance with Subsection R315-101-5(f)(8).

(3) The responsible party of a hazardous waste management site shall meet the requirements of Sections R315-265-110 through R315-265-120 or Sections R315-264-110 through R315-264-120, as applicable, before implementation of any activities described in Rule R315-101.

(4) The requirements of Subsections R315-270-1(c)(5) and R315-270-1(c)(6) shall be considered met for a hazardous waste management unit or solid waste management unit if:

(i) the level of risk, cumulative, present at the site is less than or equal to 1×10^{-6} for carcinogens and a hazard index of less than or equal to one for non-carcinogens, based on the risk assessment conducted, assuming the land use exposure scenario defined in Subsection R315-101-5(g)(1);

(ii) the director determines that ecological effects are insignificant based on the approved assessment conducted in accordance with Subsection R315-101-5(j); and

(iii) the director determines that current and potential future impacts to groundwater are insignificant in accordance with Subsection R315-101-5(f)(8).

(5) If these risk criteria are met, a request for a risk-based clean closure in accordance with Subsection R315-101-7(a) may be submitted to the director for review and approval.

(6) If the level of risk, cumulative, present at the site is greater than the limits defined in Subsection R315-101-1(b)(2) or R315-101-1(b)(4) or the director determines that ecological effects may be significant in accordance with Subsection R315-101-5(j), or current and potential future impact to groundwater is significant in accordance with Subsection R315-101-5(f)(8), then a risk-based clean closure shall not be granted. Either corrective action, as determined in accordance with Section R315-101-6 and as defined in Subsection R315-101-13(u), appropriate site management as defined in Subsection R315-101-13(f) and as determined in Subsections R315-101-7(b) and R315-101-7(c), or both, shall be required.

(c) For determination of appropriate corrective action at a site, the following criteria shall be considered in order of importance:

(1) the impact or potential impact of the contamination on human health;

(2) the impact or potential impact of the contamination on the environment;

(3) the technologies available for use in cleanup; and

(4) economic considerations and cost-effectiveness of cleanup options.

(d) The responsible party shall follow applicable guidance documents, including Utah and federal risk assessment guidance and methods approved by the director, as set forth in Rule R315-101.

R315-101-2. Stabilization of Releases.

(a) The responsible party shall immediately take appropriate action to stabilize the site either through source removal or source control. If the director determines that the action taken is insufficient to meet the requirements of Section R315-263-30, the responsible party shall submit a work plan, pursuant to Subsection R315-101-2(b), to the director for approval within 60 days of receiving notice from the director.

(b) The work plan shall:

(1) define the scope of work to be performed;

(2) include a description of the interim measures and other corrective actions to be taken; and

(3) include a description of how the plan shall meet the criteria of source removal or source control.

(c) The responsible party shall implement the work plan in accordance with the schedule contained in the approved plan. The responsible party shall implement interim measures or other corrective actions as approved. If the responsible party fails to take the measures required for stabilizing the site, the director may request the executive director of the Department of Environmental Quality to take abatement and cost recovery actions as provided in Sections 19-6-301 through 19-6-326 of the Utah Hazardous Substances Mitigation Act.

R315-101-3. Principle of Non-degradation.

(a) When closing or managing a contaminated site that has been stabilized in accordance with Section R315-101-2, the responsible party shall, to the extent practicable in accordance with Subsection R315-101-1(c), not allow the mass of contaminants in the source area to increase. Levels of contamination in groundwater, regardless of quality, shall not increase beyond the existing levels of contamination at a site when the responsible party has defined the nature and extent of contamination pursuant to Section R315-101-4. Consideration will be given to naturally occurring variations in groundwater contaminant concentrations, natural groundwater flow, and dispersion.

(b) The responsible party shall demonstrate compliance with Subsection R315-101-3(a) by submitting appropriate sampling or other data as may be required by the director.

(c) If at any time the level of contamination increases to a significant level, as determined by the director on a case-by-case basis, the responsible party shall take action, as determined by the director, such as source removal or source control, to prevent further degradation of groundwater. A work plan addressing interim action or other corrective action to mitigate the situation shall be submitted to the director for review and approval.

R315-101-4. Site Characterization, Data Collection and Documentation.

(a) Purpose. The intent of a site investigation or characterization is to define the nature and extent of all impacted environmental media, whether on-site or off-site. A phased approach to site characterization may be conducted as applicable on a case-by-case basis. These data shall be collected as part of an initial site investigation to define the nature and extent of potential contamination. The known or suspected history of past or current operations at the facility, in any environmental media shall be considered. Site characterization may also include data collected to demonstrate efficacy of a corrective action remedy pursuant to Section R315-101-6. Before the collection of any data that shall be used in a site characterization, corrective action, or post-remedial corrective action risk assessment, the responsible party shall develop and submit a work plan to the director for review and approval. The work plan shall include the following:

(1) Sampling and analysis plan specifying methods and procedures to be used for data collection and analysis as outlined in Section R315-261-1090, Appendix I, and in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" EPA Publication SW-846, available at the US EPA Hazardous Waste Test Methods/SW-846 website:

(i) samples shall be analyzed by a Utah certified laboratory using procedures and methods in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" EPA Publication SW-846, available at the US EPA Hazardous Waste Test Methods/SW-846 website;

(ii) analysis not available in Utah or methods not contained in Subsection R315-101-4(a)(1)(i) may be reviewed and approved by the director; and

(iii) documentation for laboratory work shall include the data accompanied by quality assurance and quality control measures taken in accordance with current environmental laboratory standards for a level III data package, or other QA/QC data level as determined by the director on a site-specific basis.

(2) Representative proposed media sample locations with depths, sample analytes and justification that the proposed sampling is sufficient to define the nature and extent of contamination:

(i) surface soil is defined as surface or zero to a maximum of six inches below ground surface, or as determined on a case-by-case basis; and

(ii) subsurface soil is defined as greater than six inches below ground surface, or as determined on a case-by-case basis.

(3) Conceptual site model for a site-specific characterization, identifying and showing potential primary source areas, media of concern, contaminant release mechanism, receptors of interest, exposure pathways and possible contaminant migration pathways, including the following media as applicable based on current site conditions:

(i) sediments;

(ii) soil;

(iii) biota;

(iv) groundwater;

(v) surface water; and

(vi) air.

(4) Data quality objective process steps related to the implementation of the sampling and analysis plan in accordance with "Guidance on Systematic Planning Using the Data Quality Objectives Process," EPA QA/G-4, EPA/240/B-06/001, as incorporated by reference in Section R315-101-12.

(5) Quality assurance project plan for field procedures, chain-of-custody and laboratory analytical methods to be used for the sampled media.

(6) Field quality assurance and quality control procedures to characterize and dispose of any site investigation derived waste in an appropriate manner, including a plan for decontamination procedures, field instrument calibration procedures, any standard operating procedures and other relevant documentation.

(b) Background levels. Based on the site characterization sampling results, the responsible party may determine or propose background levels of suspected hazardous constituents and may follow or consider procedures in the Soil Background and Risk Guidance document available on the Interstate Technology Regulatory Council website. The constituent list may be based on the inventory as determined in Subsection R315-101-4(c)(5) in media of concern, including: sediments, soil, groundwater, surface water, and air that are representative of the site.

(c) Additional information. The following additional information shall be collected to characterize the site and to define site boundaries and areas of contamination:

(1) a description of the site, including legal boundaries;

(2) historical land use and ownership of the site, including existing aerial photos of the site through time if requested by the director;

(3) topographical and other relevant maps of sufficient detail, scale, and accuracy to depict and locate each past and current physical structure including any buildings and waste activities at the site;

(4) information and maps of sufficient detail, scale, and accuracy to describe regional, local, and site geology, surface water, groundwater and groundwater quality, drainage features and other hydrogeological conditions;

(5) an inventory of each current and past waste stream managed at the site, hazardous waste management units, areas of concern and solid waste management units at the site, including process descriptions, amounts and types of waste generated and disposed and suspected contamination source information;

(6) location and boundaries of areas of concern including any hazardous waste management units and solid waste management units;

(7) any past sampling results, and an inventory of any releases, discharges and spills;

(8) available information such as reports and data on any previous corrective actions; and

(9) a list of all off-site property owners whose property has been or may have been affected by the release of contaminants for which the responsible party is responsible. This list shall include the name and address of each property owner and shall identify the current land use of each property.

(d) Petroleum wastes and total petroleum hydrocarbon.

At sites where petroleum wastes may be present, the media samples shall be analyzed for volatile organic compounds, semi-volatile organic compounds including Polyaromatic Hydrocarbons (PAHs), and total metals.

(e) The responsible party may propose other analytical suites for the impacted media for review and approval by the director. This shall include Polychlorinated Biphenyls (PCBs), dioxins and furans, and any other emerging contaminant of concern, as determined on a case-by-case basis, based on the history of the site and activities.

(f) Relevant information gathered in Subsections R315-101-4(a) through R315-101-4(e) shall be submitted in a site characterization report to the director for review and approval. In addition, the site characterization report shall include:

(1) site location, legal description and objectives of the site investigation;

(2) methodology and field activities completed, including the handling of any site investigation derived wastes;

(3) maps of sufficient detail and accuracy to depict waste management units, areas of contamination, nature and extent of contamination, topography, geology, groundwater quality, and potentiometric surface;

(4) site and regional geological, hydrogeological, and hydrological descriptions;

(5) a detailed discussion of any areas of contamination found during the site characterization field work;

(6) listing and concentrations of any historic and current hazardous constituents identified in Section R315-101-4;

(7) background levels of hazardous constituents, including details of statistical methods used to analyze the data gathered, if applicable;

(8) the hazardous constituents identified in accordance with Subsections R315-101-4(f)(6) and R315-101-4(f)(7) shall be known as contaminants of interest;

(9) descriptions of historic and current releases of hazardous constituents and expected extent of migration from the areas of contamination;

(10) deviations from the approved site characterization work plan and the sampling and analysis plan;

(11) discussion of the evaluated potential exposure pathways including groundwater, surface water, sediments, surface and subsurface soils and air;

(12) a summary outlining the completion of data quality objectives, completed analytical request forms for each analysis performed reported on dry-weight basis, actual sampling locations and depths with justification for variations to the approved sampling and analysis plan, any statistical analysis performed if completed, and quality assurance and quality control results and analytical data validation report in accordance with current environmental laboratory standards for a level II data package, or other QA/QC data level, as determined by the director on a site-specific basis;

(13) revised conceptual site model identified in Subsection R315-101-4(a)(3) based on the information presented in the final site characterization report; and

(14) conclusions and recommendations for additional site work and applicable supporting documentation, including figures, tables, and appendices.

(15) Groundwater, on-site or off-site, shall be considered impacted if contaminant levels are above screening levels as defined in Subsection R315-101-5(f)(1)(vii) or maximum contaminant levels.

(g) Additional site characterization data shall be collected after corrective action or other remedial actions. The confirmation data shall be used to support a closure risk assessment.

R315-101-5. Human Health and Ecological Risk Evaluation Criteria and Risk Assessment.

(a) When conducting the risk assessment, the responsible party shall use the conceptual site model, as defined in Subsection R315-101-13(o) and as described in Subsection R315-101-4(a)(3) or R315-101-4(f)(13), as applicable, and shall use applicable site characterization or confirmation data. For the areas of contamination as defined in Subsection R315-101-13(g), the following shall be included when conducting the risk assessment:

(1) identification, concentration, and distribution of any suspected hazardous constituents identified in Section R315-101-4 and defined as contaminants of interest in Subsection R315-101-4(f)(8);

(2) fate of contaminants of interest and any pathways and transport of contaminants of interest;

(3) any potential exposure routes;

(4) human receptors; and

(5) ecological receptors.

(b) General Human Health Risk Assessment Methodology.

(1) A risk assessment shall be conducted once the nature and extent of contamination has been adequately defined or corrective action completed. The risk assessment may be performed for impacted media by choosing either a Tier 1 approach in accordance with Subsection R315-101-5(f) or a Tier 2 risk assessment process in accordance with Subsection R315-101-5(g). Tier 1 shall be a screening risk assessment and Tier 2 shall be a refined risk assessment that may include site-specific exposure assumptions and allowance of alternative approaches, such as a Monte Carlo exposure risk analysis, probabilistic risk assessment. If excess risks are noted for the Tier 1 assessment, a Tier 2 assessment is required.

(2) The concentration term for each medium and for each contaminant of interest identified in Section R315-101-4 and Subsection R315-101-4(f)(8) and determined to be a contaminant of potential concern following comparison to background shall be evaluated using either the maximum detected concentration or an upper confidence limit as derived using the US EPA ProUCL program.

(3) The fate, pathways, and transport of contaminants of interest identified in Section R315-101-4, defined in Subsection R315-101-4(f)(8), and determined to be a contaminant of potential concern following comparison to background, shall be evaluated using the conceptual site model developed pursuant to Subsection R315-101-4(a)(3) or R315-101-4(f)(13), as applicable and approved by the director.

(c) The exposure scenarios identified in the conceptual site model shall be estimated using reasonable maximum exposure parameters and shall be based on both current and potential future anticipated land use and receptors defined in Subsections R315-101-5(g)(1) and R315-101-5(g)(2).

(d) The conceptual site model shall include a determination as to whether or not each of the following pathways is complete under both current and anticipated future conditions. Risks shall be quantified for those receptors where exposure pathways have a reasonable potential for being complete unless it may be demonstrated that the risk is less significant when compared to other quantified receptor risks.

(1) Potential exposure pathways for surficial soils include:

(i) leaching to groundwater;

(ii) migration to a surface water body; and

(iii) human exposure through ingestion of soil, dermal contact with soil, inhalation of vapors and particulates emitted by surficial soils.

(2) Potential exposure pathways for subsurface soils include:

(i) leaching or vapor migration, including sinking vapors, to groundwater;

(ii) migration to a surface water body;

(iii) volatilization and upward migration of vapors from subsurface soil and potential indoor or outdoor inhalation of these emissions; and

(iv) human exposure through ingestion of soil, dermal contact, inhalation of vapors and particulates.

(3) The soil exposure interval applicable to residents is defined as surface down to ten feet below ground surface. The soil exposure interval applicable to the industrial or commercial worker is defined as surface to one foot below ground surface. The soil exposure interval applicable to the construction worker is defined as surface down to depth of construction of ten feet below ground surface. Alternative soil exposure intervals shall be determined on a case-by-case basis as approved by the director.

(4) Soil exposure pathways applicable to all receptors where the conceptual site model, in accordance with Subsection R315-101-4(a)(3) or R315-101-4(f)(13), identifies soil as a complete or potentially complete exposure pathway, shall include:

(i) ingestion;

(ii) dermal contact with soil;

(iii) inhalation of vapor emissions; and

(iv) inhalation of particulates from soil.

(5) Groundwater exposure pathways applicable to all receptors where the conceptual site model, in accordance with Subsection R315-101-4(a)(3) or R315-101-4(f)(13), identifies groundwater as a complete or potentially complete exposure pathway, shall include:

(i) ingestion;

(ii) dermal contact with groundwater; and

(iii) inhalation of vapor emissions.

(6) Additional exposure to groundwater shall be considered on a site-specific basis which may include:

(i) volatilization and upward migration of vapors from groundwater and potential indoor inhalation of vapor emissions;

(ii) volatilization and upward migration of vapors from groundwater and potential outdoor inhalation of vapor emissions;

(iii) potable use of groundwater, including ingestion of groundwater, dermal contact with groundwater during showering or bathing, and inhalation of vapors from domestic use of groundwater if pathway is complete; and

(iv) migration to surface water body and potential impacts to surface water and potential exposures to surface water.

(7) Other exposure pathways that may need to be considered on a site-specific basis may include the following:

(i) contact with soils and ingestion of soils, sediments, inhalation of vapors and particulates, surface water and groundwater for any other anticipated human contacts, such as recreational and trespasser activities;

(ii) ingestion of produce grown in impacted soils;

(iii) use of groundwater for irrigation purposes;

(iv) use of groundwater for industrial purposes;

(v) ingestion of livestock or fish or other aquatic organisms that, as a result of media contamination, have bioaccumulated constituents of potential concern through the food chain; and

(vi) ingestion, dermal contact, and inhalation of vapors from surface water such as from recreational activities, including swimming.

(e) The responsible party shall develop a risk assessment work plan for review and approval by the director before the risk evaluation.

(f) Tier 1 screening risk assessment. The Tier 1 evaluation shall assume no institutional or engineering controls in place, such as security, signage, pavements, personal protective equipment, fences, or remediation. The Tier 1 risk assessment evaluation may not be appropriate under circumstances when every complete exposure pathway is not covered by the screening values. The Tier 2 refined risk assessment approach may be more appropriate for evaluation in this circumstance.

(1) Screening levels. The Tier 1 evaluation shall use one or more of the following screening levels:

(i) US EPA Regional Screening Levels available at the US EPA Risk Assessment, Regional Screening Levels (RSLs) website;

(ii) site-specific background 95% upper tolerance limit levels developed in accordance with the US EPA ProUCL model;

(iii) vapor intrusion screening levels calculated using US EPA Vapor Intrusion Screening Level Calculator, as incorporated by reference in Section R315-101-12, available at the US EPA Vapor Intrusion Screening Levels Calculator website;

(iv) petroleum vapor intrusion screening guidelines developed in accordance with "Technical Guide for Addressing Petroleum Vapor Intrusion at Leaking Underground Storage Tank Sites," US EPA, as incorporated by reference in Section R315-101-12;

(v) site-specific confidence limits for groundwater background established for the site in accordance with "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance," US EPA, as incorporated by reference in Section R315-101-12; or

(vi) in instances where a US EPA Regional Screening Level is not available, a responsible party, with the approval of the director, may develop and calculate a site-specific screening value.

(2)(i) The US EPA Regional Screening Levels, confidence limits, site-specific background levels, calculated site-specific screening values, and vapor intrusion screening levels shall be known collectively as screening values.

(ii) Documents referenced in Subsections R315-101-5(f)(1)(i) through R315-101-5(f)(1)(vi) and other director approved sources shall be used as sources for obtaining screening values.

(3) Determination of constituents of potential concern.

(i) For inorganic contaminants of interest, the following steps shall be followed for determination of constituents of potential concern that shall be included in the risk evaluation.

(A) The maximum detected concentration of each contaminant of interest for soil, sediment, and groundwater, or other site-specific media such as surface water, may be compared to the site-specific background reference level, defined as the 95% upper tolerance limit or a confidence limit. If the maximum detected site concentration is greater than the background reference level, the inorganic contaminants of interest shall be considered a constituent of potential concern. If site-specific background reference levels are not available, the detected inorganic contaminant shall be retained as a contaminant of potential concern.

(B) For those inorganic contaminants of interest whose maximum concentrations are greater than the background reference, a test of means hypothesis shall be used to determine if inorganic contaminants of interest are present at elevated levels over background levels.

(C) If the results of the test of means hypothesis indicate the detected inorganic contaminant of interest is elevated over background level, it will be retained as a constituent of potential concern.

(D) If a test of means hypothesis cannot be performed due to sample size or if there is no established site-specific background reference level, the inorganic contaminant of interest shall be retained as a constituent of potential concern.

(ii) For organic contaminants of interest, all contaminants with a minimum of one detection shall be retained as constituents of potential concern. If site-specific background reference levels are available for organics, additional refinement of organic contaminants of potential concern may be conducted in accordance with Subsection R315-101-5(f)(3)(i).

(4) Exposure point concentration.

(i) The initial exposure point concentration for all inorganic and organic constituents of potential concern shall be the maximum detected concentration for each medium evaluated in the Tier 1 assessment.

(ii) If the maximum detected concentration results in a cancer risk greater than $1x10^{-6}$ or a hazard quotient greater than one, a refined exposure point concentration based on a 95% upper confidence limit on the mean may be calculated using the EPA ProUCL program. The lesser of the maximum concentration and the 95% upper confidence limit concentration shall be selected as the exposure point concentration.

(iii) If the minimum required sample size of eight or more for calculating the 95% upper confidence limit cannot be met or there are insufficient numbers of detection, the maximum detected concentration, or an alternative concentration as approved by the director, shall be the exposure point concentration.

(5) Cumulative risk shall be determined for all carcinogenic constituents of potential concern and a hazard index shall be determined for all noncarcinogenic contaminants of potential concern.

(i) The cumulative effects screening cancer risk estimate is calculated as the sum of the ratios of exposure point concentrations and screening values for the combined land use exposure pathways, identified under the conceptual site model developed in accordance with Subsection R315-101-4(a)(3) or R315-101-4(f)(13) as applicable for impacted media, multiplied by $1x10^{-6}$.

(ii) The hazard index is calculated as the sum of the ratios of exposure point concentrations and screening values for the combined residential land use exposure pathways identified under the conceptual site model in accordance with Subsection R315-101-4(a)(3) or R315-101-4(f)(13) as applicable for impacted media.

(iii) If a contaminant of potential concern has both carcinogenic and non-carcinogenic toxicity, both toxicities shall be evaluated using both the carcinogenic and non-carcinogenic based US EPA Regional Screening Level or other screening levels.

(iv) If the cumulative effects screening cancer risk is less than or equal to $1x10^{-6}$ and hazard index is less than or equal to one, then the cumulative effects screening risks posed by detected carcinogenic contaminants of interest at the site meet acceptable risk levels and additional evaluation for the receptor and scenario is not required.

(v) If the cumulative effects screening cancer risk is greater than $1x10^{-6}$ or the hazard index is greater than one, then a Tier 2 risk assessment or further evaluation may be required.

(6) Residential land use.

(i) Risks to residents from ingestion of livestock grazing on a contaminated site shall be evaluated and added to the cumulative effects risk equation if it is determined to be a plausible and complete exposure pathway.

(ii) Vapor intrusion pathway if complete, shall be evaluated and added to the cumulative effects screening risk equation.

(iii) Any other relevant exposure pathway consistent with the residential exposure pathway shall be evaluated and added to the cumulative risk.

(iv) If it is determined that the residential land use cumulative effects screening cancer risk posed by constituents of potential concern is less than or equal to the target cancer risk of $1x10^{-6}$ and the hazard index is less than or equal to one for each combined residential land use exposure pathways, and it is determined that there are no current and potential future impacts to groundwater as determined by site-specific attenuation factors derived using "Supplemental Guidance For Developing Soil Screening Levels," US EPA, as incorporated by reference in Section R315-101-12, Subsections R315-101-4(f)(15), R315-101-5(f)(8) and R315-101-5(f)(1)(vii), and ecological impacts are insignificant in accordance with Subsection R315-101-5(j), then the site meets the risk-based clean closure criteria for no further action or unrestricted land use as identified in Subsection R315-101-7(a).

(v) If it is determined that the residential land use cumulative effects screening cancer risk posed by constituents of potential concern is greater than the target risk of $1x10^{-6}$ or the hazard index is greater than one for each combined residential land use exposure pathway, then further evaluation of the site may be conducted using either the Tier 2 refined risk assessment evaluation approach for a residential land use exposure scenario as identified in Subsection R315-101-5(g)(1) or a non-residential land use exposure scenario as identified in Subsection R315-101-5(g)(2), and site management as identified in Section R315-101-7, or the responsible party may choose to conduct corrective action as identified in Section R315-101-6 to mitigate risks at the site to residential acceptable levels.

(vi) An ecological evaluation shall also be completed as part of the screening residential land use risk evaluation as described in Subsection R315-101-5(j).

(vii) A groundwater impact evaluation shall also be completed as part of the screening residential land use risk evaluation as identified in Subsection R315-101-5(f)(8).

(7) Industrial or commercial land use or construction worker.

(i) If the cumulative effects screening risk is less than or equal to a cancer risk of $1x10^{-6}$ and the hazard index is less than or equal to one, then the cumulative effects screening risks posed by detected contaminants of potential concern at the site meets the industrial or commercial land use or construction worker risk, or both, and the site meets the criteria for restricted land use as identified in the Subsection R315-101-7(b).

(ii) If the cumulative effects screening risk is greater than a cancer risk of $1x10^{-6}$ or the hazard index is greater than one, then the cumulative effects screening risks posed by the detected contaminants of potential concern at the site do not meet the industrial or commercial land use or construction worker, or both, and a Tier 2 assessment or further evaluation is required.

(iii) If the cumulative effects screening risk is greater than cancer risk of $1x10^{-6}$ but less than $1x10^{-4}$ and the hazard index is less than or equal to one, then restricted land use closure with land use controls may be used in accordance with Subsections R315-101-7(b)(1) and R315-101-7(c).

(iv) Exposure scenarios not covered in the screening values shall be evaluated separately and added to the cumulative effects risks. Evaluations may include the vapor intrusion pathway if it is determined to be complete using the vapor intrusion screening levels.

(v) Other receptors relevant to the industrial or commercial land use or both scenario, such as a trespasser or recreational user, shall be evaluated.

(vi) An ecological evaluation, as identified in Subsection R315-101-5(j), shall also be completed as part of the screening industrial or commercial land use or construction worker, or both, risk evaluation.

(vii) A groundwater impact evaluation, as identified in Subsections R315-101-5(f)(8) and R315-101-4(f)(15), shall also be completed as part of the screening industrial or commercial land use or both risk evaluation.

(8) For evaluation of potential future impacts to groundwater one or more of the following steps shall be used:

(i) Step 1. Compare the maximum detected concentration for constituents of potential concern in soil to the US EPA Regional Screening Levels, groundwater protection soil screening level based on a dilution attenuation factor of 20, unless it may be demonstrated that background levels for the contaminants of concern at the site exceed the applicable soil screening levels. If the maximum detected concentrations exceed the US EPA Soil Screening Levels for groundwater protection, the potential exists for future impacts to groundwater. The groundwater protection soil screening level value shall be the greater of either the maximum contaminant level or the risk-based groundwater protection soil screening level value for evaluation. If the potential for future groundwater contamination exists, the responsible party may provide additional lines of evidence and a re-evaluation using a refined exposure point concentration of the 95% upper confidence limit. If sufficient data are not available to calculate a 95% upper confidence limit, the maximum constituent of potential concern concentration value shall be used for evaluation, or the director may approve an alternate value; or

(ii) Step 2. Derive a site-specific dilution attenuation factor and a site-specific groundwater protection soil screening level value. The development of the site-specific dilution attenuation factor shall follow "Supplemental Guidance for Developing Soil Screening Levels," US EPA, as incorporated by reference in Section R315-101-12. If the 95% upper confidence limit concentration exceeds the calculated groundwater protection soil screening level, the potential exists for future impacts to groundwater. The groundwater protection soil screening level value shall be the greater of either the maximum contaminant level or the risk-based groundwater protection soil screening level value for evaluation. If the potential for future groundwater contamination exists, the responsible party may choose to submit a work plan for approval by the director describing actions that will be taken to protect groundwater from future impacts due to soil contamination. In addition, the work plan shall include a proposal for collection of sufficient monitoring data to evaluate both current and future groundwater conditions; or

(iii) Step 3. The responsible party shall propose an alternate method for evaluating potential future impacts to groundwater due to soil contamination to the director for approval. If it is determined that the potential for future groundwater contamination exists, the responsible party shall submit a work plan for approval by the director describing actions that will be taken to protect groundwater from future impacts due to soil contamination. In addition, the work plan shall include a proposal for collection of sufficient monitoring data to evaluate both current and future groundwater conditions.

(g) Tier 2 refined risk assessment. A Tier 2 refined risk assessment shall be conducted using the methodologies described in the "US EPA Risk Assessment Guidance for Superfund Sites," Parts A to F, as incorporated by reference in Section R315-101-12, and following standard land use exposure assumption scenarios listed in Subsections R315-101-5(g)(1) and R315-101-5(g)(2):

(1) Residential Land Use.

(i) child receptor; and

(ii) adult receptor

(2) Non-residential Land Use.

(i) commercial or industrial or both;

(ii) construction worker; and

(iii) trespasser or recreationalist as applicable.

(3)(i) The Tier 2 risk assessment shall assume no institutional or engineering controls in place, such as security, signage, pavements, personal protective equipment, fences or remediation.

(ii) The risk assessment shall use US EPA standard default exposure parameters, variables and equations based on reasonable maximum exposure in the evaluation, unless scientific evidence suggests otherwise. If a US EPA standard default exposure parameter or variable is not available, the responsible party shall use the "Exposure Factors Handbook," US EPA, as incorporated by reference in Section R315-101-12, for default values, or other sources as approved by the director.

(iii) A refined risk assessment may be conducted using site-specific exposure parameters and a Monte Carlo simulation in a probabilistic risk analysis with the approval of the director.

(4) Evaluations shall be conducted in accordance with US EPA approved standards and methodologies and other methodologies as approved by the director. This may include the following guidance:

(i) "Guidelines for the Health Risk Assessment of Chemical Mixtures," Risk Assessment Forum, EPA/630/R-98/002, as incorporated by reference in Section R315-101-12;

(ii) "Risk Assessment Guidance for Superfund Volume 1: Human Health Evaluation Manual (Parts A-F)," Office of Emergency and Remedial Response EPA/504/1-89/002, Interim Final, as incorporated by reference in Section R315-101-12;

(iii) "Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors," US EPA OSWER Directive 9200.1-20, as incorporated by reference in Section R315-101-12;

(iv) "Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures," US EPA, as incorporated by reference in Section R315-101-12;

(v) "Soil Screening Guidance Technical Background Document," US EPA and "Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites," US EPA, as incorporated by reference in Section R315-101-12;

(vi) "Guidelines for Carcinogen Risk Assessment," EPA/630/P-03/001F, as incorporated by reference in Section R315-101-12;

(vii) "Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens," EPA/630/R-03/00F, as incorporated by reference in Section R315-101-12;

(viii) "OSWER Technical Guidance for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air," US EPA OSWER 9200.2-154, as incorporated by reference in Section R315-101-12;

(ix) "Technical Guide for Addressing Petroleum Vapor Intrusion At Leaking Underground Storage Tank Sites," US EPA, as incorporated by reference in Section R315-101-12; and

(x) "Risk Assessment Guidance for Superfund, Part A, Volume III, Process for Conducting Probabilistic Risk Assessment," US EPA 540-0R-02-002 OSWER 9285.7-45 PB 2002 963302, as incorporated by reference in Section R315-101-12.

(5) In performing the Tier 2 risk assessment, the responsible party shall use toxicity information for carcinogenic and non-carcinogenic effects in accordance with Subsections R315-101-5(i) and R315-101-5(j)(8).

(6) Risk characterization shall identify carcinogenic risks and non-carcinogenic risks for the constituents of potential concern.

(7) The age dependent adjustment factors shall be applied to carcinogens with a mutagenic mode of action.

(8) Risk characterization shall be based on cumulative risk effects and assumption of additivity in the absence of adequate evidence of toxicological interactions as follows.

(i) For non-carcinogenic toxicants acting by similar modes of action or affecting common organs, dose addition shall be followed.

(ii) For carcinogenic risks or toxicants acting independently, response addition shall be followed.

(9) Carcinogenic cumulative risk may also be calculated as the sum of the probabilities of each chemical across the exposure pathways for cumulative risks less than 0.01. For cumulative risks greater than 0.01, the One-Hit Model, as specified in "Risk Assessment Guidance for Super Fund Volume 1: Human Health Evaluation Manual," Part A, US EPA, Office of Emergency and Remedial Response EPA/504/1-89/002, Interim Final, as incorporated by reference in Section R315-101-12, shall be used.

(10) Non-carcinogenic hazard indices shall be calculated as the sum of the non-carcinogenic effects for each chemical across the exposure pathways. However, if the hazard index is greater than one, the hazard quotients should be summed separately by target organ or mode of action.

(11) If total petroleum hydrocarbons are present, the risk assessment shall be evaluated using indicator compounds, and shall be conducted in accordance with Subsections R315-101-5(f), R315-101-5(f)(8), R315-101-5(g), R315-101-5(j), "Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures," EPA/630/R-00/002, as incorporated by reference in Section R315-101-12, and the US DOE Risk Assessment Information System website, and in accordance with other procedures approved by the director.

(i) The cumulative risk of the petroleum mixture shall assume additivity, dose addition or response addition, unless there is data suggesting toxicological interaction.

(ii) The risk assessment shall be based on the conceptual site model identified in Subsection R315-101-4(a)(3) or R315-101-4(f)(13) as applicable.

(12) Current and future anticipated land use scenarios evaluation.

(i) The evaluation shall be based on current and reasonably anticipated future uses of the property. Sources of information on land uses may include:

(A) current zoning and comprehensive plan maps and applicable regulations provided by the local jurisdiction for the properties within the locality of the site;

(B) inquiries made and responses as to whether there are regional trends that are relevant to land uses and activities in the locality of the site;

(C) inquiries made of any environmental protection zones or regulations; and

(D)(I) the property owner's planned use of land.

(II) An inactive or vacant, fenced or non-fenced, property with no proposed land use in an area zoned for industrial or commercial land use or both shall be assumed to be reasonably used for industrial or commercial use or both in the future.

(III) An inactive or vacant, fenced or non-fenced, property in an area zoned for residential land use shall be assumed to be reasonably used for residential land use in the future.

(IV) For the protection of human health and the environment, if future anticipated land use conditions offer a more protective exposure scenario than the current land use scenario, the more protective future anticipated land use shall be evaluated.

(V) A summary of the results and conclusions along with supporting documentation as to what the current and reasonably anticipated future land uses are for parcels within the locality of the site shall be submitted with the Tier 2 refined risk assessment for approval.

(h) Data and results presentation.

(1) A risk assessment report shall be submitted to the director for review and approval. The report may be a stand-alone document or included in a site characterization or closure report. The risk assessment, whether submitted by itself or included in a larger report, shall include, at a minimum, the following:

(i) an executive summary;

(ii) an overview of the site;

(iii) a detailed discussion of areas of contamination;

(iv) an exposure assessment identifying exposure levels for the exposure pathways identified in Subsections R315-101-5(c) and R315-101-5(j)(4)(i);

(v) if fate and transport models are used, the user's manual, model theory, computer software for the model, installation verification data set for the model and input files for the model runs shall be provided upon request by the director;

(vi) the output results of the model runs;

(vii) background levels of identified hazardous constituents including any statistical methods used in evaluation of background data;

(viii) identification and concentration of the contaminants of interest identified in Subsection R315-101-4(f)(8);

(ix) a list of constituents of potential concern, contaminants of concern, and contaminants with mutagenic mode of action for human health and constituents of potential ecological concern;

(x) US EPA Regional Screening Levels or, when US EPA Regional Screening Levels are not used, the toxicity information of identified constituents of potential concern, specifically listing mutagenic constituents of potential concern, including slope factors, inhalation unit risks, weight-of-evidence classification, non-carcinogenic chronic reference doses, age dependent adjustment factors, chronic deference concentrations and critical effects associated with reference doses and reference concentrations, toxicity reference values and any other ecological benchmarks used in the risk assessment;

(xi) a list of identified ecological receptors;

(xii) a list of identified ecological habitats;

(xiii) risk characterization calculations including data used; and

(xiv) the risk characterization identifying carcinogenic risk and non-carcinogenic risk for the constituents of potential concern, ecological hazard indices as determined in accordance with Subsection R315-101-5(j), uncertainties analysis, and a tabulation of the risk characterization data presented in a format approved by the director.

(2) If the risk assessment report does not contain the required information of sufficient quality and detail, the director will notify the responsible party in writing of deficiencies and shall require resubmittal of the report in a designated time frame.

(3) If the risk assessment report contains the required information of sufficient quality and detail, the director will approve, the risk assessment report in writing.

(i) Identification of sources of toxicity information.

(1) Sources of toxicity information gathered for identified hazardous constituents, weight-of-evidence classification and critical effects associated with reference doses and reference concentrations shall be in order of preference based on the US EPA hierarchy of human health toxicity values tiered system, "Human Health Toxicity Values in Superfund Risk Assessment," US EPA OSWER Directive 9285.7-53, as incorporated by reference in Section R315-101-12. The approved hierarchy, in order of acceptance is as follows:

(i) US EPA Integrated Risk Information System.

(ii) US EPA Provisional Peer Reviewed Toxicity Values.

(iii) Additional sources may include US EPA and non-US EPA sources of toxicity information with priority given to sources that have been peer reviewed including the following:

(A) California Environmental Protection Agency toxicity values;

(B) Agency for Toxic Substances and Disease Registry Minimal Risk Levels;

(C) US EPA additional sources; or

(D) US EPA Health Effects Assessment Summary toxicity data.

(2) US EPA Regional Screening Levels; and

(3) US DOE Risk Assessment Information System website.

(j) Ecological risk assessment.

(1) Before conducting the risk assessment, the responsible party shall submit a work plan for approval.

(2) An ecological risk assessment for the site shall include terrestrial and aquatic processes as appropriate using toxicity information for the constituents and biological processes relevant to the ecological evaluation. This shall include plants, soil invertebrates, benthic invertebrates, wildlife species and other ecological receptors as approved by the director. A list of all ecological receptors of interest shall also be included.

(3) A waiver of Subsection R315-101-5(j) may be granted by the director if the responsible party demonstrates that ecological receptors will not be affected by any contamination using any of the following criteria:

(i) environmental conditions at the site may be used to eliminate the need for ecological risk assessment;

(ii) the affected property is not a viable habitat and the site cannot be used by potential ecological receptors as a habitat;

(iii) complete or potentially complete exposure pathways do not exist due to prevailing conditions or property setting; or

(iv) detected chemicals at the site are below the ecological screening benchmark levels.

(4) An ecological risk assessment for a site shall be conducted to include the following information:

(i) a problem formulation, identification of constituents of potential ecological concern, identification of habitats, media sampled, potential ecological effects, relevant ecological receptors, relevant exposure pathways, initial definition of assessment and measurement endpoints, with respect to current and reasonably anticipated future land and water uses as described in a conceptual site model;

(ii) the data quality objectives for the ecological risk assessment shall be based on the conceptual site model, with emphasis on analytical detection limits appropriate for ecological receptors;

(iii) an exposure analysis to include identification and selection of constituents of potential ecological concern, identification and selection of target or representative ecological receptors, an exposure pathway model relating target or representative receptors, exposure routes and measurement endpoints for both current and reasonably anticipated future land and water use scenarios;

(iv) an ecological response analysis including a summary of current information regarding the toxicological effects, ecological effects, bioconcentration potential, bioaccumulation potential, biomagnification potential, persistence of the identified constituents of potential ecological concern and ecological benchmark values;

(v) a risk characterization presenting the quantitative ecological risks potentially associated with the site, a discussion of any available site-specific ecological studies, a detailed discussion of risks associated with the bioconcentration potential, bioaccumulation potential, biomagnification potential, and persistence of each contaminant, and consideration of any other available, published and peer reviewed scientific information on other sources of adverse ecological conditions as appropriate;

(vi) an evaluation of the potential for significant adverse effects on the health or viability of individual ecological receptors or local populations, including a weight-of-evidence analysis or population viability analysis. These evaluations may include field studies, laboratory investigations, appropriate population models, or any combination of these or other methods of evaluation as approved by the director; and

(vii) a quantitative and qualitative uncertainty analysis as appropriate for each element of the risk assessment.

(5) Ecological risk assessment estimates shall be conducted:

(i) at the individual level for species present in the locality of the site if the species is listed as threatened or endangered, or is a state sensitive species; and

(ii) at the population level for any other species of plants or animals in the locality of the site.

(6) Cumulative hazard from multiple hazardous substances shall be assessed by summing the hazards posed separately by individual hazardous substances in the locality of the site, unless it is demonstrated that the summation assumption is not appropriate.

(7) Ecological risk assessment shall be conducted in accordance with the following:

(i) "Framework for Ecological Risk Assessment," EPA/630/R-92/001, as incorporated by reference in Section R315-101-12;

(ii) "Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments Interim Final," EPA 540-R.97-006, OSWER 9285.7-25. PB97-963211, as incorporated by reference in Section R315-101-12;

(iii) "Guidelines for Ecological Risk Assessment," US EPA, as incorporated by reference in Section R315-101-12;

(iv) US EPA "Guidance for Developing Ecological Screening Levels," US EPA, as incorporated by reference in Section R315-101-12; and

(v) any other sources as approved by the director.

(8) Appropriate sources of exposure factor information and toxicological parameters may include the following:

(i) "Wildlife Exposure Factors Handbook," US EPA, as incorporated by reference in Section R315-101-12;

(ii) "Toxicological Benchmarks for Wildlife," Oak Ridge National Laboratory (ORNL), as incorporated by reference in Section R315-101-12;

(iii) Los Alamos National Laboratory (LANL) ECORisk Database;

(iv) US EPA Ecological Soil Screening Levels;

(v) "Guidance for Developing Ecological Soil Screening Levels," US EPA, as incorporated by reference in Section R315-101-12; and

(vi) any other sources as approved by the director.

(9) In the absence of available and acceptable toxicity information, the director may require the development of site-specific toxicity information.

(10) An ecological risk assessment shall be conducted using a tiered evaluation approach as described in Subsections R315-101-5(j)(10)(i) through R315-101-5(j)(10)(x).

(i) A Tier 1 ecological screening risk assessment shall use conservative assumptions and shall include:

(A) a conceptual site model;

(B) an evaluation of fate and transport mechanisms;

(C) an identification of constituents of potential ecological concern;

(D) a characterization of the ecological setting; and

(E) a selection of toxicity endpoints and receptors of ecological significance.

(ii) Tier 1 ecological screening risk assessment - exposure pathways:

(A) each ecological receptor is considered to be exposed to constituents of potential ecological concern in soil in the zero to two feet below ground surface interval. In addition, burrowing animals and deep-rooted plants may be considered to be exposed to constituents of potential ecological concern in soils deeper than two feet; and

(B) exposure pathways may include ingestion, direct contact, exposure through uptake of biota exposed to constituents of potential ecological concern, and plant uptake of constituents of potential ecological concern.

(iii) The exposure assessment for the Tier 1 ecological screening risk assessment shall be conducted by assuming:

(A) the maximum detected concentrations as the exposure point concentration for calculating exposure doses;

(B) the area use factor is equal to one indicating that the home range of the receptor is the entire contaminated area;

(C) the bioavailability of contaminants is equal to 100%;

(D) the maximum reported ingestion rate from literature;

(E) the dietary composition consists of direct ingestion of 100% of the constituents of potential ecological concern levels in soil;

(F) each calculation is performed on a dry-weight basis; and

(G) minimum receptor body weight.

(iv) The toxicity assessment for the Tier 1 ecological screening risk assessment shall be conducted by assuming:

(A) for wildlife, the dose-based toxicity reference values, which are receptor, media, and chemical specific, shall be the applicable protective standards available in peer reviewed literature sources;

(B) the toxicity reference values selected shall be those based on no observed adverse effects levels for evaluation;

(C) the responsible party may use a literature search to determine availability of data for derivation of a toxicity reference value if detected constituents of potential ecological concern have no published toxicity reference values, and shall provide the following:

(I) the responsible party shall provide supporting data to the director for approval of the newly derived toxicity reference value; and

(II) if the responsible party cannot derive a toxicity reference value based on literature, the detected constituents of potential ecological concern shall be addressed qualitatively in the uncertainty analysis of the ecological risk assessment report;

(D) for plants and other invertebrate receptors, such as soil organisms, benthic organisms and aquatic organisms, concentration-based effects benchmarks shall be used:

(I) concentration levels identified in peer reviewed literature sources shall be used as measurement endpoints for evaluation of chemical effects on receptors;

(E) the effects concentration levels shall be the no observed effects concentrations; and

(F) the responsible party may use a literature search to determine availability of data for derivation of effects concentration levels if detected constituents of potential ecological concern have no published effects concentration levels:

(I) the responsible party shall provide supporting data to the director for approval of the newly derived effects concentration levels; and

(II) if the responsible party cannot derive effects concentration levels based on literature, the detected constituents of potential ecological concern shall be addressed qualitatively in the uncertainty analysis of the ecological risk assessment report.

(v) The risk characterization of the Tier 1 ecological screening risk assessment.

(A) For plants and other invertebrate receptors, a screening hazard quotient, shall be calculated as the maximum detected exposure concentration of constituents of potential ecological concern divided by the no observed effects concentration.

(B) For wildlife, a screening hazard quotient shall be calculated as the estimated exposure dose or contaminant intake divided by the no observed adverse effects level-based toxicity reference value.

(C) Tier 1 screening results.

(I) If the calculated screening hazard quotient or hazard index is less than or equal to one, no further evaluation is required.

(II) If the calculated screening hazard quotient or hazard index is greater than one, then there may be the potential for adverse ecological risk from the detected constituents of potential ecological concern at the site. The responsible party shall either conduct corrective action or conduct further evaluation in a Tier 2 refined ecological risk assessment.

(vi) A Tier 2 refined ecological risk assessment shall:

(A) use constituents of potential ecological concern with screening hazard quotients or hazard indices greater than one for a refined problem formulation; and

(B) use site-specific exposure assumptions in Subsections R315-101-5(j)(10)(ii) and R315-101-5(j)(10)(iii) for the refined evaluation.

(vii) The exposure assessment in the Tier 2 refined ecological risk assessment shall include exposure dose calculated utilizing site-specific exposure assumptions as follows:

(A) exposure point concentration:

(I) calculate exposure point concentration as the 95% upper confidence limit if sufficient data are available in accordance with US EPA ProUCL software; and

(II) if sufficient data are not available to calculate the 95% upper confidence limit, an alternate value, as approved by the director, shall be used as the exposure point concentration;

(B) estimate the site-specific area use factor for each representative receptor by dividing the receptor's average home range by the area of contamination or area of the solid waste management units:

(I) this estimate shall have a value between zero and one;

(C) the bioavailability of constituents of potential ecological concern shall be assumed to be other than 100% based on available literature or other sources as approved by the director;

(D) the ingestion rate for each representative receptor shall be assumed to be the average reported ingestion rate in reported literature or estimated from average body weight using allometric equations;

(E) the dietary composition shall be based on receptor specific percentages of plant, animal, and soil matter:

(i) the non-dietary ingestion of soil shall be assumed to be in addition to the dietary intake rate to add up to 100%, soil and dietary items;

(F) the concentrations of constituents of potential ecological concern in receptor dietary elements, plant and animal matter, shall be predicted by using bio uptake and bioaccumulation models;

(G) each calculation shall be performed on a dry-weight basis;

(H) if a bioaccumulation model is not available, 100% uptake factor shall be assumed;

(I) each equation and variables used to estimate constituents of potential ecological concern in plants shall be listed;

(J) the methodologies for determination of bioaccumulation factors for the constituents of potential ecological concern shall be documented; and

(K) exposure doses for wildlife receptors shall be assessed using bio uptake and bioaccumulation modeling to predict the concentration of constituents of potential ecological concern in animal matter that may be ingested by wildlife receptors.

(viii) The toxicity assessment for a Tier 2 refined ecological risk assessment shall be based on:

(A) the lowest observed adverse effects levels for wildlife receptors and lowest observed effects concentrations for plants and invertebrate receptors; and

(B) the toxicity reference values shall be based on the lowest observed adverse effects levels for each wildlife receptor and shall be based on lowest observed effects concentrations for any other receptors including invertebrates, with the exception of endangered, threatened and sensitive species for which a no observed adverse effects level applies.

(ix) The risk characterization of the Tier 2 refined ecological risk assessment.

(A) For wildlife vertebrate receptors, a hazard quotient shall be calculated as the ratio of the estimated receptor-specific contaminant intake or dose to the lowest observed adverse effects level-based toxicity reference value.

(B) For plants and other invertebrate receptors, a qualitative discussion of the potential for adverse effects shall be provided in the assessment. The assessment shall be based on plant hazard quotients or hazard indices as well as site observations that were made during a habitat survey.

(C) Hazard quotients shall be summed for the constituents of potential ecological concern with similar receptor-specific modes of toxicity.

(D) Tier 2 assessment results.

(I) If the hazard quotient or the hazard index is less than or equal to one, adverse ecological effects are not expected and no further action is needed.

(II) If the hazard index is greater than one, there is potential for adverse ecological effects to occur at the site and the responsible party shall either conduct corrective action or conduct further evaluation in a Tier 3 refined ecological risk assessment as outlined in Subsection R315-101-5(j)(10)(x).

(x) A Tier 3 refined ecological risk assessment shall be conducted based on:

(A) a site-specific ecological evaluation;

(B) uptake factors, bioaccumulation factors, bioavailability factors, and plant uptake factors determined from the analysis of animal and plant tissue collected at the site;

(C) the evaluation of unique exposure pathways and effects of exposure to various life stages or other assessment endpoints as determined by the director;

(D) the evaluation of habitat suitability including habitat quality; and

(E) the calculation of refined hazard quotients and hazard indices for the constituents of potential ecological concern shall take into account information from Subsections R315-101-5(j)(10)(i) through R315-101-5(j)(10)(x).

(xi) Tier 3 refined ecological risk assessment results and possible outcomes.

(A) If the Tier 3 refined evaluation results in a hazard index greater than one, the responsible party, shall, in conjunction with the results of a Tier 2 refined evaluation, use several lines of evidence and a weight-of-evidence approach to facilitate a final determination regarding the need for corrective action.

(B) Site remediation shall be required if unacceptable or potential significant adverse ecological effects are documented by the risk assessment results.

(C) The director has the discretion to require corrective action at the site based on data and ecological significance as reported.

(11) Results presentation.

An ecological risk assessment report shall be prepared and submitted to the director in accordance with the requirements in Subsection R315-101-5(h).

R315-101-6. Corrective Action.

(a) Corrective action is required at a site when:

(1) the level of risk present at the site is greater than $1x10^{-4}$ for carcinogens or a hazard index greater than one for non-carcinogens for the risk assessment conducted assuming the land use exposure scenario defined in Subsection R315-101-5(g)(1) or R315-101-5(g)(2);

(2) the director determines that ecological effects are significant based on the approved assessment conducted in accordance with Subsection R315-101-5(j); or

(3)(i) groundwater contamination is exceeded, on-site or off-site, in accordance with Subsection R315-101-4(f)(15) or groundwater contaminant concentrations have been shown to be above a corrective action level using a statistical corrective action test in accordance with "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities" US EPA Unified Guidance, as incorporated by reference in Section R315-

101-12, or the "Groundwater Statistics and Monitoring Compliance Guidance Document," Interstate Technology Regulatory Council (ITRC), as incorporated by reference in Section R315-101-12; or

(ii) residual contamination present at the site poses a potential threat to groundwater in accordance with Subsection R315-101-5(f)(8) and "Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites," US EPA, as incorporated by reference in Section R315-101-12, and "Soil Screening Guidance Technical Background Document," US EPA, as incorporated by reference in Section R315-101-12.

(b) The responsible party shall submit a corrective action work plan that includes the responsible party's proposed remedial option for cleanup of the site for review and approval before implementation of the corrective action activities at the site. Determination of appropriate corrective action measures shall be made in accordance with criteria identified in Subsection R315-101-1(c). Any proposed modifications to the approved plan shall be reviewed and approved by the director before implementation of the proposed modification.

(c) Any corrective action levels proposed shall be protective of the complete exposure pathways or potentially complete exposure pathways for all receptors.

(d) The responsible party shall submit a corrective action report after completion of corrective action activities at the site to the director for review and approval.

(e) The corrective action report shall include a request for a corrective action completeness determination from the director.

R315-101-7. Risk Management: Site Management Plan and Closure Equivalency.

(a) A determination of no further action or corrective action complete without controls or unrestricted land use or risk-based clean closure and no site management shall be approved when:

(1) the level of risk present at the site is less than or equal to $1x10^{-6}$ as the point of departure for carcinogens and the hazard index is less than or equal to one for non-carcinogens based on the approved risk assessment conducted assuming the land use exposure scenario defined in Subsection R315-101-5(g)(1);

(2) the director determines that ecological effects as the site are insignificant based on the approved assessment conducted in accordance with Subsection R315-101-5(j); and

(3) current impacts to groundwater are insignificant in accordance with Subsection R315-101-4(f)(15) and residual contamination present at the site possess no future threat to groundwater in accordance with Subsection R315-101-5(f)(8) and "Soil Screening Guidance Technical Background Document," US EPA, as incorporated by reference in Section R315-101-12, or groundwater contaminant concentrations have been shown to be below a corrective action level using statistical corrective action test in accordance with "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities," US EPA Unified Guidance, as incorporated by reference in Section R315-101-12 or the "Groundwater Statistics and Monitoring Compliance Guidance Document," Interstate Technology Regulatory Council (ITRC) as incorporated by reference in Section R315-101-12, as applicable.

(b) A determination of either corrective action complete with controls or restricted land use, along with a site management plan shall be approved when:

(1) the level of risk present as the site is greater than $1x10^{-6}$ but less than $1x10^{-4}$ for carcinogens and the hazard index is less than or equal to one for non-carcinogens based on the approved risk assessment conducted assuming the land use exposure scenario defined in Subsection R315-101-5(g)(1) or R315-101-5(g)(2); and

(2) clean closure is not supported by conclusions of either the site investigation or corrective action risk assessment.

(c) The site management plan shall:

(1) be submitted within 60 days of approval of the risk assessment report and include a schedule for implementation;

(2) be supported by the findings in the approved risk assessment report and contain appropriate site management activities;

(3) encompass any activities, controls and conditions necessary to manage the risk to human health and the environment so that acceptable risk levels are not exceeded under current or reasonably anticipated future land use conditions;

(4) ensure that the assumptions made in the estimation of risk and applicable target risk levels are being met; and

(5) ensure that adverse ecological effects are controlled and managed so that documented hazard quotients and indices are less than or equal to one.

(d) Appropriate site management activities shall be measures and controls taken to manage and reduce risks greater than 1×10^{-6} but less than $1x10^{-4}$ under both current and reasonably anticipated future land use conditions, through land use controls, such as institutional controls and engineering controls, groundwater monitoring, post-closure care, or corrective action as determined by the director on a case-by-case basis as defined in Subsection R315-101-13(f).

(e) The site management plan shall be reviewed and approved by the director before implementation of the plan. Before approval, the site management plan shall be subject to the public notice requirements of Section R315-101-10.

(f)(1) If the director finds that the site management plan is not adequate for protection of human health and the environment, the responsible party shall resubmit a revised site management plan addressing the comments of the director within an appropriate time frame as specified by the director. The director shall review and approve or reject the revised site management plan. The responsible party shall resubmit the site management plan addressing the deficiencies in a time frame specified by the director.

(2) The site management plan shall be implemented in accordance with the approved schedule.

(g)(1) Upon completion of the requirements in Subsection R315-101-7(a), corrective action shall be considered complete without controls and the land is acceptable for unrestricted use.

(2) The requirements of Subsections R315-270-1(c)(5) and (6) shall be deemed met if Subsection R315-101-7(a) is met.

(h) The site management plan shall include a land use control plan that specifies allowable and prohibited use of the site.

(i) Land use controls shall guarantee that pathways of exposure to contaminants of concern remain incomplete for as long as there are hazardous wastes or hazardous waste constituents remaining that could pose an unacceptable risk to human health and the environment.

(j) Land use controls shall be reliable, enforceable, and consistent with the risk posed by the contaminants of concern as documented in the approved risk assessment report. Land use controls may include engineering controls such as capping, paving, vapor barriers, fencing, signage, site security, and institutional controls, such as post-closure care and land use restrictions, as determined on a case-by-case basis and approved by the director.

(k) In instances where contamination, including groundwater, has migrated off-site, and the director determines that the contaminant concentration poses a potential risk exceeding the acceptable risk level for residential land use exposure scenario defined in Subsection R315-101-5(g)(1), the responsible party shall:

(1) Submit a proposed written notice of contamination to the director for approval before its distribution to the off-site property owners affected or potentially affected by the contamination.

(i) The written notice shall at a minimum, include the following:

(A) names of the contaminants detected above applicable screening levels;

(B) the corresponding screening levels;

(C) the respective detected contaminant concentrations; and

(D) adverse effects on human health and the environment.

(2) Notify the off-site property owners, in writing, within 30 days of director approval of written notice.

(3) Provide the director with a certified mail return receipt, or any other form of delivery that provides confirmation of receipt.

(4) With the property owner's consent, and with the director's approval, conduct corrective action in accordance with Section R315-101-6 to reduce concentrations of constituents of concern on the property to or below residential land use exposure scenario defined in Subsection R315-101-5(g)(1) or R315-101-4(f)(15) as applicable, if it is determined by the director that the action is necessary for protection of human health and the environment, or that groundwater use is designated as a drinking water source or is potentially a drinking water source; or

(5) If groundwater contamination has migrated off-site but Subsections R315-101-7(k)(1) through R315-101-7(k)(4) are not applicable, the responsible party shall inform the off-site property owner in writing of the contamination, as required by Subsection R315-101-7(k)(1), and with the property owner's consent, and with the director's approval, conduct corrective action in accordance with Section R315-101-6 to reduce concentrations of contaminants of concern on the off-site property to non-residential land use exposure levels consistent with the requirements of Subsection R315-101-5(g)(2) and the designated groundwater use, and develop a site management plan in accordance with Section R315-101-7. The responsible party shall prepare and obtain the director's approval for an environmental covenant concerning the property. The responsible party shall request the property owner to record the environmental covenant and document to the director its efforts to have the environmental covenant recorded.

(l) If the responsible party cannot gain access to further characterize the off-site property, or to assess and manage risks, or to conduct corrective action on the off-site property, the responsible party shall:

(1) document each attempt to gain access to the off-site property, and obtain concurrence from the director that the attempts made were reasonable and that no further attempts need to be made;

(2) meet the applicable target risk levels or some approved groundwater protection standards at the boundary of the site; and

(3) with a site management plan approved by the director, take the necessary actions to prevent further migration of contaminants of concern beyond the site boundary.

(m) For impacts to off-site groundwater, surface water bodies and sediments, and other media, the corrective action levels shall be protective of each receptor, human and ecological, for each current and potential future exposure pathway.

(n) The site management plan in Subsections R315-101-7(k)(5) and R315-101-7(l)(3) addressing off-site and site groundwater contamination respectively, shall include the activities and conditions necessary to address current and potential future impacts to groundwater. The proposed controls and measures shall be consistent with Section R315-101-3 and prevent further ground water degradation at the site or off-site property so that risks are controlled, reduced or maintained at levels within the acceptable risk range as defined in Subsection R315-101-13(c).

(o) Once the site management plan as specified in Subsection R315-101-7(b), R315-101-7(k)(5) or R315-101-7(l)(3) as applicable has been approved by the director, the contamination level shall not be allowed to exceed the level of risk specified in the plan. The responsible party has the burden to demonstrate that future levels of contamination at either the site or off-site property or both are either below or within the range of risk levels specified in the site management plan.

(p) If the responsible party cannot demonstrate that the level of contamination at either the site or off-site property or both is either below or within the range of risk levels specified in the site management plan, then further corrective action may be required as determined by the director to bring the risk levels to within the acceptable risk range as specified in the site management plan. A revised site management plan may be required by the director.

(q) In instances where contaminated groundwater has been determined by the director as having no complete exposure pathways and there is no migration of the contaminated plume off-site, or when the director has approved a claim of technical impracticability for corrective action, then, instead of meeting specific cleanup levels, the acceptable management goals and remedy, shall be the following:

(1) source control of releases of contaminants that may pose a threat to human health and the environment;

(2) protection of human health and the environment from any potential exposure pathways to contaminated groundwater;

(3) long-term plume containment system for protection of human health and the environment;

(4) perpetual care obligation of the responsible party;

(5) periodic groundwater monitoring, unless terminated by the director after an evaluation of the site-specific conditions and risk characteristics, to demonstrate that contaminant levels are not increasing and the groundwater plume is stationary; and

(6) periodic re-evaluation of the technical impracticability decision as part of routine performance monitoring to ensure long-term protection of human health and the environment.

R315-101-8. Contents of a Site Management Plan, Land Use Controls, Environmental Covenants, Restrictions, Controls and Conditions.

(a) The content of the site management plan. The site management plan to be approved by the director shall contain at a minimum:

(1) a legal description of the site including a legal plat map, a copy of the recorded deed showing ownership, and documents showing all liens;

(2) a summary of the media investigations conducted at the site including the characterization, delineation and listing of identified constituents of potential concern and contaminants of concern;

(3) a summary of the completed human health risk assessment and ecological risk assessment performed in accordance with Section R315-101-5;

(4) an implementation schedule of the site management plan within the site;

(5) a description of the groundwater conditions under the site and within the impacted aquifer, as defined in a site characterization report and including activity and use limitations for potable, culinary, domestic, process, irrigation or any other groundwater uses;

(6) a complete list of the persons or entities that have rights of reasonable access to the site at any time after the effective date of the site management plan for activities such as monitoring and compliance with the site management plan, along with any other terms and conditions of the site management plan;

(i) the site management plan shall also indicate that persons with legal interest in land and those subject to the site management plan are required to allow compliance with the site management plan;

(7) provisions that the director, and the director's authorized officers, employees, or representatives may at any reasonable time and upon presentation of appropriate credentials, have access to the site to monitor, sample or determine compliance with the site management plan or environmental covenant;

(8) a list of the contact names and information for site management plan inquiries; and

(9) a general description of any site-specific groundwater monitoring including:

(i) a general overview of the proposal;

(ii) a summary of site groundwater conditions; and

(iii) the current and potential uses of groundwater and the contaminants of concern.

(b) Activities related to monitoring potential contamination of the groundwater at the site shall be conducted under an approved groundwater monitoring plan. The responsible party shall submit a draft plan to the director and shall not proceed with any portion of the plan until the director has given written approval.

(1) Based on the results of the groundwater monitoring, the potential need for additional site management activities shall be evaluated and implemented, if necessary, to protect human health and the environment. Groundwater monitoring shall be the responsibility of the property owner and its assignees.

(c) If an existing groundwater monitoring well is lost, abandoned, destroyed, or needs to be relocated for development purpose, the owner shall replace the wells in an area that provides the groundwater data required by the site management plan. Any proposal to replace groundwater monitoring wells requires review and approval by the director. If drinking water wells are proposed, the responsible party shall provide prior notice to the director after obtaining either any necessary permits approval or both for the installation of the proposed drinking water wells by the appropriate state, local or other regulatory agencies.

(d) Site management plan modification and termination. The site management plan shall be subject to review and may be terminated or modified as follows.

(1) If groundwater sampling data within the site or off-site property indicates that approved groundwater corrective action levels found in Subsections R315-101-4(f)(15), R315-101-6(a)(3)(i), and R315-101-7(k)(4), as applicable, have been met for the site or impacted off-site property, the responsible party may request modification or termination of the groundwater monitoring program, as follows:

(i) groundwater data shall be evaluated using a statistical corrective action test in accordance with the "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance," US EPA, or the "Groundwater Statistics and Monitoring Compliance Guidance Document," Interstate Technology Regulatory Council (ITRC), as incorporated by reference in Section R315-101-12;

(ii) a demonstration that future levels of contamination will not exceed the approved groundwater corrective action levels; and

(iii) land use controls, either engineering or institutional or both, shall be relied upon to ensure protection of human health and the environment if the approved corrective action levels are more than the drinking water standards, maximum contaminant levels.

(2) If soil sampling data, including soil vapor, within the site or off-site indicate corrective action levels as found in Section R315-101-6 have been met for the soil portion of the site, the owner may request a modification or termination of the section of the site management plan addressing soil management at the site or at an impacted off-site property.

(3) If the owner or responsible party satisfies Subsections R315-101-8(d)(1) and R315-101-8(d)(2) and, in addition, meets the requirements defined in Subsection R315-101-7(a), the owner may request a corrective action complete without controls determination or a no further action determination.

(4) If Subsection R315-101-8(d)(3) is satisfied, a request for termination of the site management plan and the environmental covenant may be submitted to the director for approval.

(5) The director may require public comment on any modifications or termination of the approved site management plan and environmental covenant in accordance with Section R315-101-10.

(6) The director may require a re-evaluation of the approved risk assessment, the site management plan and the environmental covenant upon receipt of new information or data that brings into question the protectiveness of the existing site management plan.

(e) Land use controls.

(1) The site management plan shall identify land use limitations for the site, such as residential, industrial, commercial, recreational, agricultural or any other comparable use with a similar level of human occupancy and exposure. The site management plan shall also identify the land use controls to be placed upon the site. Any subsequent plans for development of the site shall demonstrate to the director that the level of risk present for the proposed use shall not exceed the applicable risk levels specified in the site management plan.

(2) The site management plan shall contain as many land use controls, institutional and engineering, as is deemed necessary to protect human health and the environment. Controls may include maintaining pavement, capping, soil excavation restrictions, and groundwater use limitations. Each control shall be approved by the director.

(3) The proposed land use controls shall be developed and included in the site management plan.

(4) Land use controls shall be used at any site where cumulative carcinogenic risk exceeds a level of $1x10^{-6}$ but is less than $1x10^{-4}$ after cleanup or as indicated by the approved risk assessment report.

(5) Land use controls shall ensure that pathways of exposure to contaminants of concern remain incomplete for as long as there are contaminants of concern remaining that could pose an unacceptable risk to human health or the environment.

(6) Land use controls shall be enforceable pursuant to Section 57-25-111 and consistent with the risks posed by the contaminants of concern reported in the approved risk assessment report. The responsible party, or a subsequent landowner who assumes the responsibility of maintaining land use controls, shall be responsible for reimbursing the agency for any costs associated with periodic administrative oversight to ensure that land use controls are maintained and are in compliance with the site management plan. Costs shall not exceed the authorized statutory rate for technical oversight by the agency at the time of service.

(f) An environmental covenant. An environmental covenant pursuant to Sections 57-25-101 through 57-25-114 shall be required for each site unless it has been documented that any contaminants of interest at the site are at or below background levels or the following requirements have been met:

(1) the level of risk is less than or equal to $1x10^{-6}$ for carcinogens and the hazard index is less than or equal to one for non-carcinogens pursuant to the risk assessment conducted assuming the land use exposure scenario defined in Subsection R315-101-5(g)(1);

(2) the ecological effects have been determined to be insignificant; and

(3) there are no current or potential future impacts to groundwater.

(g) The content of the environmental covenant. The environmental covenant shall contain at a minimum:

(1) a brief narrative description of the contamination and remedy;

(2) a list of the constituents of potential concern and contaminants of concern;
(3) a list of the exposure pathways;
(4) the limits of exposure;
(5) the locations and extent of the contamination;
(6) a brief narrative description of land use limitations for the site;
(7) any groundwater use limitations;
(8) any ground surface use limitations; and
(9) any worker safety limitations.

(h) For all legal interests in the subject property created after the recording of the environmental covenant and for all interests voluntarily subordinated to the environmental covenant the environmental covenant shall indicate that persons with legal interest in land and those subject to the site management plan are required to maintain compliance with the site management plan.

(i) The environmental covenant shall include provisions that the director, and the director's authorized officers, employees, or representatives may at any reasonable time and upon presentation of appropriate credentials, have access to the site to monitor, sample or determine compliance with the site management plan or the environmental covenant.

(j) The terms and conditions of the land use controls established on the property shall be consistent with the environmental covenant recorded for the site.

(k) Within 30 days of the director signing the environmental covenant, the owner shall record the approved environmental covenant with the county recorder's office, and within 30 days of recording shall submit a copy of the recorded document to the director.

(l) Restrictions, controls and conditions. Restrictions, controls and conditions specified in the environmental covenant and the site management plan shall be enforceable by the director under Section 57-25-111 and Rule R315-101.

R315-101-9. Owner Responsibilities.

(a) The owner or responsible party shall ensure compliance with the environmental covenant and the land use restrictions such as groundwater use restrictions, soil removal restrictions, hazard notifications, implementation of the groundwater monitoring program and any other restrictions or conditions cited in the site management plan. Documentation of compliance with the site management plan requirements shall be submitted to the director upon request.

(b) The owner or responsible party shall notify present and future workers at the site of the residual risk at the site and the existence of the site management plan. This includes site workers present for a typical work week and construction workers who may be temporary. If the site management plan specifies controls to prevent workers from exposure, the owner or responsible party shall provide those controls.

(c) Within 48 hours of becoming aware of a deviation from the site management plan the owner or responsible party shall notify the director of the deviation. The owner or responsible party shall submit to the director a written report within 30 days detailing the nature of the deviation and an evaluation of whether the situation and existing site management practices compromise the level of protection afforded by the original site management plan requirements and whether an alternate site management plan is needed to provide a comparable level of protection. Any proposed modification to the site management plan requirements shall require director approval.

(d) The environmental covenant shall run with the land and shall be binding on the current and all subsequent owners. The site management plan requirements shall be imposed and enforced on the current owner through an environmental covenant. Additionally, after the environmental covenant is recorded in the appropriate county recorder's office, each deed, title or other instrument conveying an interest in the property executed by the owner or the owner's successors in title to the property shall include a notice stating that the property is subject to the site management plan and environmental covenant, and shall reference the recorded location of the site management plan and environmental covenant and the restrictions applicable to the property in the site management plan.

(e) In instances where groundwater contamination has migrated off-site, and the director determines that the contaminant concentration poses a potential risk, the responsible party shall notify the impacted off-site property owners in accordance with Subsections R315-101-7(k) and R315-101-7(l).

(f) The responsible party, with the approval of the director, shall comply with Subsection R315-101-7(k)(4), R315-101-7(k)(5) or R315-101-7(l) as applicable.

R315-101-10. Public Participation.

(a) The director may provide for public participation in each phase of the cleanup action process, as defined in Sections R315-101-4 through R315-101-7.

(b) Before approving the site management plan, the director shall provide public notice for public comment periods and public hearings for the site management plan in accordance with Sections R315-124-10 through R315-124-12 and R315-124-17.

R315-101-11. Administrative Oversight.

(a) The director or the director's representatives shall have access to the site as described in Section R315-260-5 and at any time when activity pursuant to Rule R315-101 is taking place. The director or the director's representatives may collect environmental samples or document any visit to the site by photographic, or videographic or some other reasonable means.

(b) The director shall send an invoice to the responsible party for review of plans, reports or other technical documents submitted, contractor costs, laboratory costs and time spent on correspondence, telephone calls, meetings, field work, and any associated activities to meet the requirements of Rule R315-101.

(c) The owner shall pay any invoices it receives from the director in accordance with the instructions on the invoice.

(d) The responsible party shall notify the director at least seven days before any field work such as a sampling event or remediation activity.

(e) Information submitted to the director shall be signed by the responsible party.

R315-101-12. Documents Incorporated by Reference.

For purposes of Rule R315-101 regarding cleanup action and Risk-Based Closure Standards, the following documents are incorporated by reference.

(a) Interstate Technology Regulatory Council (ITRC), December 2013, "Groundwater Statistics and Monitoring Compliance" Guidance Document.

(b) Los Alamos National Laboratory (LANL), 2011, "ECORisk Database."

(c) Oakridge National Laboratory (ORNL), 1996, "Toxicological Benchmarks for Wildlife: 1996 Revision." ES/ER/TM-86/R3.

(d) Oakridge National Laboratory (ORNL), May 1998, "A Guide to the ORNL Ecotoxicological Screening Benchmarks: Background, Development, and Application," ORNL/TM-13615.

(e) United States Environmental Protection Agency (US EPA), 1986, "Guidelines for the Health Risk Assessment of Chemical Mixtures," Risk Assessment Forum, EPA/630/R-98/002.

(f) United States Environmental Protection Agency (US EPA), 1989, "Risk Assessment Guidance for Super Fund Volume 1: Human Health Evaluation Manual (Part A)", Office of Emergency and Remedial Response EPA/504/1-89/002, Interim Final.

(g) United States Environmental Protection Agency (US EPA), March 25, 1991, "Risk Assessment Guidance for Super Fund Volume 1: Human Health Evaluation Manual Supplemental Guidance Standard Default Exposure Factors." Interim Final. OSWER Directive 9285.6-03.

(h) United States Environmental Protection Agency (US EPA), December 1991, "Risk Assessment Guidance for Super Fund Volume 1: Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals)," Office of Emergency and Remedial Response EPA/504/1-89/003, Interim Final.

(i) United States Environmental Protection Agency (US EPA), December 1993, "Wildlife Exposure Factors Handbook, Volume I of II," EPA/600/R-93/187.

(j) United States Environmental Protection Agency (US EPA), May 1992, "Supplemental Guidance to RAGS: Calculating the Concentration Term," Office of Solid Waste and Emergency Response, Washington, D.C. OSWER Directive 9285.7-081.

(k) United States Environmental Protection Agency (US EPA), February 1992, "Framework for Ecological Risk Assessment," EPA/630/R-92/001.

(l) United States Environmental Protection Agency (US EPA), December 1993, "Wildlife Exposure Factors Handbook, Appendix: Literature Review Database, Volume II of II" EPA/600/ R-93/187.

(m) United States Environmental Protection Agency (US EPA), May 1996, "Soil Screening Guidance Technical Background Document," EPA/540/R95/128.

(n) United States Environmental Protection Agency (US EPA), June 1997, "Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments," Interim Final, EPA 540-R.97-006, OSWER 9285.7-25, PB97-963211.

(o) United States Environmental Protection Agency (US EPA), April 1998, "Guidelines for Ecological Risk Assessment."

(p) United States Environmental Protection Agency (US EPA), August 2000, "Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures," EPA/630/R-00/002, August Risk Assessment Forum Technical Panel.

(q) United States Environmental Protection Agency (US EPA), December 2001, "Risk Assessment Guidance for Superfund: Volume 1 Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments)," Final, OSWER 9285.7-47.

(r) United States Environmental Protection Agency (US EPA), March 2001, "EPA Requirements for Quality Management Plans," EPA QA/R-2, EPA/240/B-01/002.

(s) United States Environmental Protection Agency (US EPA), December 2001, "Risk Assessment Guidance for Superfund: Volume III - Part A, Process for Conducting Probabilistic Risk Assessment," EPA 540-0R-02-002 OSWER 9285.7-45 PB 2002 963302.

(t) United States Environmental Protection Agency (US EPA), December 2002, "Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites," OSWER 9355.4-24.

(u) United States Environmental Protection Agency (US EPA), December 2002, "Guidance for Quality Assurance Project Plans," EPA QA/G-5, EPA/240/R-02/009, OSWER 2002.

(v) United States Environmental Protection Agency (US EPA), December 2002(a), "Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites."

(w) United States Environmental Protection Agency (US EPA), February 2005, "Guidance for Developing Ecological Soil Screening Levels," Office of Solid Waste and Emergency Response OSWER Directive 9285.7-55.

(x) United States Environmental Protection Agency (US EPA), December 2003, "Human Health Toxicity Values in Superfund Risk Assessment," Office of Solid Waste and Emergency Response, OSWER Directive 9285.7-53.

(y) United States Environmental Protection Agency (US EPA), February 2004, "User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings."

(z) United States Environmental Protection Agency (US EPA), July 2004, "Risk Assessment Guidance for Superfund Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)," EPA/540/R/99/005, Final.

(aa) United States Environmental Protection Agency (US EPA), March 2005(b), "Guidelines for Carcinogen Risk Assessment," EPA/630/P-03/001F.

(bb) United States Environmental Protection Agency (US EPA), March 2005(c), "Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens," EPA/630/R-03/003F.

(cc) United States Environmental Protection Agency (US EPA), February 2006, "Guidance on Systematic Planning Using the Data Quality Objectives Process," EPA/240/B-06/001.

(dd) United States Environmental Protection Agency (US EPA), January 2009, "Risk Assessment Guidance for Superfund Volume 1: Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)," EPA/540/R/070/002, OSWER 9285.7-82.

(ee) United States Environmental Protection Agency (US EPA), March 2009, "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance," Final, EPA 530/R-09-007.

(ff) United States Environmental Protection Agency (US EPA), December 1991, "Risk Assessment Guidance for Super Fund Volume 1: Human Health Evaluation Manual (Part C, Risk Evaluation of Remedial Alternatives)," Office of Emergency and Remedial Response EPA/540/R-92/004, Interim.

(gg) United States Environmental Protection Agency (US EPA), September 2011, "Exposure Factors Handbook: 2011 Edition," Office of Research and Development, EPA/600/R-090/052F.

(hh) United States Environmental Protection Agency (US EPA), February 2012, "Superfund Vapor Intrusion FAQs."

(ii) United States Environmental Protection Agency (US EPA), October 2015, "ProUCL Version 5.1 Technical Guide Statistical Software for Environmental Applications for Data Sets with and without Nondetect Observations," EPA/600/R-07/041.

(jj) United States Environmental Protection Agency (US EPA), February 2014, "Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors," OSWER Directive 9200.1-20.

(kk) United States Environmental Protection Agency (US EPA), May 2014, "Vapor Intrusion Screening Level (VISL) Calculator User's Guide."

(ll) United States Environmental Protection Agency (US EPA), June 2015, "OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air," OSWER 9200.2-154.

(mm) United States Environmental Protection Agency (US EPA), June 2015, "Technical Guide for Addressing Petroleum Vapor Intrusion at Leaking Underground Storage Tank Sites."

(nn) United States Environmental Protection Agency (US EPA), March 2005, "Update of Ecological Soil Screening Level (Eco-SSL) Guidance and Contaminant Specific Documents."

(oo) United States Environmental Protection Agency (US EPA), September 1986, "Guidelines for Mutagenicity Risk Assessment", EPA/630/R-98/003.

(pp) United States Environmental Protection Agency (US EPA), September 1995, "Establishing Background Levels," OSWER Directive 9285.7-19FS, EPA/540/F-94/030.

R315-101-13. Definitions.

Terms used in Rule R315-101 regarding cleanup action and Risk-Based Closure Standards are defined as follows:

(a) "95% Upper Confidence Limit or 95% UCL" means an estimate of the arithmetic average concentration for a contaminant and it provides reasonable confidence that the true site average will not be underestimated.

(b) "95% Upper Tolerance Limit or 95% UTL" means a value not to be exceeded of possible background concentration values and so provides a reasonable upper limit on what is likely to be observed in the background with 95% confidence.

(c) "Acceptable Risk Range" means cancer risk greater than or equal to 1×10^{-6} but less than or equal 1×10^{-4} or a hazard index less than or equal to one with justifiable, reasonable and practicable measures in place to reduce and control risk within the range.

(d) "Action Level" means the existence of a contaminant concentration in the environment that is high enough to warrant an action or trigger a response action under the National Oil and Hazardous Substances Contingency Plan.

(e) "Adverse Effect" means any effect that causes harm to the normal functioning of plants, animals, or humans due to exposure to any contaminants of concern.

(f) "Appropriate Site Management Activities" means measures that are reasonable and practical that will be taken to control and reduce risks greater than 1×10^{-6} and less than 1×10^{-4} for carcinogen and hazard index equal to or less than one for non-carcinogens under both current and reasonably anticipated future land use conditions, for example, institutional controls, engineering controls, groundwater monitoring, post-closure care, or corrective action and ensuring that assumptions made in the estimation of cancer risk and non-cancer hazard in the risk assessment report are not violated.

(g) "Area of Contamination" means a hazardous waste management unit or a solid waste management unit or an area where a release has occurred.

(h) "Assessment Endpoints" means an explicit expression of environmental value that is to be protected. It is the part of the ecosystem that should be protected at a superfund site and it is generally some characteristic of a species of plant or animal, for example, reproduction, growth, that may be described numerically.

(i) "Background" means substances or locations that are not influenced by releases from a site and are naturally occurring in the environment in forms that have not been influenced by human activity or are natural and human-made substances present in the environment as a result of anthropogenic activities and not related to the site.

(j) "The boundary" means the furthest extent where contamination from a defined source has migrated in any medium when the release is first identified.

(k) "Cancer Risk" means the probability that an individual with contract cancer after lifetime exposure to a carcinogen.

(l) "Cleanup" means the range of corrective action activities that occur in the context of addressing environmental contamination at RCRA sites to lower contaminant concentration or decrease chemical toxicity. Activities may include waste removal, contaminated media removal or source reduction, such as excavation or pumping, in-place treatment of waste or contaminated media, such as bioremediation, monitored natural attenuation, containment of waste or contaminated media, such as barrier walls, low permeability covers, liners or capping, or various combination of these approaches.

(m) "Concentration Term - 95% Upper Confidence Limit" means the intake variable and it is an estimate of the arithmetic average concentration for a contaminant based on a set of site sampling results. Because of the uncertainty associated with estimating the true average concentration at a site, the 95% Upper Confidence Limit of the arithmetic mean is used to represent this variable and provides reasonable confidence that the true site average will not be underestimated.

(n) "Complete Exposure Pathway" means how a contaminant may be traced or expected to travel from a source to a plant or animal that may be affected by that chemical and shall meet the following:

(1) the presence of a source and transport;

(2) exposure point or contact (receptor); and

(3) exposure route. Otherwise exposure is incomplete.

(o) "Conceptual Site Model" means a written, illustrative, or both, representation of a site that documents the physical, chemical and biological processes that control the transport, migration, actual or potential, or both impacts of contamination in soil, air, ground water, surface water, sediments, to human or ecological receptors, or both, exposure pathways, at a site or at a reasonably anticipated site under both current and potential future land use scenarios.

(p) "Contaminate" means to make a medium polluted through the introduction of hazardous waste or hazardous constituents as identified in Section R315-261-1092, which incorporates by reference 40 CFR 261, Appendix VIII.

(q) "Contaminants of Concern" means Constituents of Potential Concern that significantly contribute to a pathway in a land use scenario for a receptor that either exceeds a cumulative cancer risk of 1×10^{-4} or exceeds a non-cancer hazard index of one.

(r) "Contaminants of Interest" means chemicals detected at the site during the site characterization process that may pose threat to human health or the environment.

(s) "Constituents of Potential Concern" means constituents detected in a medium that are selected to be addressed in the risk assessment process because contact with humans may result in adverse effects.

(t) "Constituents of Potential Ecological Concern" means any constituent that is shown to pose possible ecological risk at a site. It is generally a constituent that may or may not be causing risk or adverse effects to plants and animals at a site.

(u) "Corrective Action" means the cleaning up of environmental problems caused by the mismanagement of wastes, or the cleanup process or program under RCRA and any activities related to the investigation, characterization, and cleanup of release of hazardous waste or hazardous constituents from solid waste management units or hazardous waste management units at a permitted or interim status treatment storage or disposal facilities or voluntary cleanup sites or brownfield sites.

(v) "Corrective Action Complete With Controls" means a condition of a solid waste management unit, a hazardous waste management unit, an area of contamination or a contaminated site where site characterization or risk assessment indicate corrective action is required and completed and the results of the risk assessment meet the closure standards and requirements specified in Subsection R315-101-7(b), or a condition of a solid waste management unit, a hazardous waste management unit, area of contamination or a contaminated site where site characterization or risk assessment indicate corrective action is not required but also meets the closure standards and requirements specified in Subsection R315-101-7(b).

(w) "Corrective Action Complete Without Controls" means a condition of a solid waste management unit, a hazardous waste management unit, area of contamination or a contaminated site where site characterization or risk assessment indicate corrective action is required and completed and the results of the risk assessment meet the closure standards and requirements equivalent to a no further action or meeting the requirements of Subsection R315-101-7(a) or a condition of a solid waste management unit, a hazardous waste management unit, area of contamination or a contaminated site when site characterization or risk assessment indicate corrective action is not required but also meets the closure standards and requirements equivalent to a no further action or meeting the requirements of Subsection R315-101-7(a).

(x) "Corrective Action Level" means the concentration of a contaminant in a medium after cleanup of a site that is protective of human health and the environment.

(y) "Data Quality Objectives" means qualitative and quantitative statements of the quality of data needed to support specific decisions or regulatory actions.

(z) "Dilution Attenuation Factor" means the ratio of the contaminant concentration in soil leachate to the concentration in groundwater at the receptor point.

(aa) "Environment" means the surroundings or conditions in which a person, animal, or plant lives or operates.

(bb) "Exposure" means contact of an organism with a chemical or physical agent and it is the amount of the agent available at the exchange boundaries of the organism.

(cc) "Exposure Pathway" means the course a chemical or physical agent takes from a source to an exposed organism.

(dd) "Exposure Point Concentration" means either a statistical derivation of measured data or modeled data that represents an estimate of the chemical concentration available from a particular medium or route of exposure. The exposure point concentration value is used to quantify potential cancer risks and non-cancer hazards.

(ee) "Groundwater Cleanup Levels" means site-specific groundwater chemical concentration levels based on groundwater use designation and exposure pathway established to ensure the protection of human health and the environment when defining groundwater cleanup objectives.

(ff) "Groundwater Use" means the current or reasonably expected maximum beneficial use of groundwater that warrants the most stringent cleanup levels, including drinking or other uses.

(gg) "Hazard Index" means the sum of hazard quotients.

(hh) "Hazard Quotient" means the ratio of exposed dose to some reference dose or reference concentration.

(ii) "Lowest Observed Adverse Effects Level or Lowest Observed Adverse Effects Concentration" means the lowest level of a chemical stressor evaluated in a toxicity test that shows harmful effects on a plant or animal. A Lowest Observed Adverse Effects Level is based on dose of a chemical ingested while Lowest Observed Adverse Effects Concentration refers to direct exposure to a chemical such as through the skin.

(jj) "Maximum Contaminant Level" means the highest level of a contaminant that is allowed in drinking water and is set as close to the "Maximum Contaminant Level Goal" as feasible using the best available treatment technology and taking cost into consideration. Maximum Contaminant Levels are enforceable standards.

(kk) "Maximum Contaminant Level Goal" means the level of a contaminant in drinking water below which there is no known or expected risk to health. Maximum Contaminant Level Goals allow for a margin of safety and are non-enforceable public health goals.

(ll) "Measures of Effects" means quantitative measurements of effects expressed as statistical or numerical assessment endpoint summaries of the observations that make up the measurement.

(mm) "Measurement End Point" means a measurable ecological characteristic that is related to the valued characteristic chosen as the assessment endpoint and it is a measure of biological effects such as death, reproduction, or growth, of a particular species.

(nn) "Natural Resources" means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other similar resources.

(oo) "No Further Action" means the state of a solid waste management unit, a hazardous waste management unit, or a contaminated site at closure meeting the requirements in Subsection R315-101-7(a) and it is equivalent to corrective action complete without controls if the site was under corrective action activities. No further action is equivalent to unrestricted land use.

(pp) "No Observed Adverse Effects Level or No Observed Adverse Effects Concentration" means the highest level of a chemical stressor in a toxicity test that did not cause a harmful effect in a plant or animal. A No Observed Adverse Effects Level refers to a dose of chemical that is ingested, while a No Observed Adverse Effects Concentration refers to direct exposure to a chemical such as through the skin.

(qq) "Point of Departure" means the target risk level that risk to an individual is considered insignificant.

(rr) "Potentially Complete Exposure Pathway" means a pathway that, due to current site conditions is incomplete, but could become complete at a future time because of changing site practices. For example, the ingestion pathway of groundwater from a residential well in a high total dissolved solids aquifer. This pathway could be complete if treatment technologies like reverse osmosis become economically feasible and are observed to be employed successfully in that aquifer.

(ss) "Reasonable Maximum Exposure" means the highest exposure that is reasonably expected to occur at a site. Reasonable Maximum Exposure combines upper-bound and mid-range exposure factors so that the result represents an exposure scenario that is both protective and reasonable; not the worst possible case.

(tt) "Regional Screening Levels" means risk-based chemical concentrations derived from standardized equations combing exposure assumptions with US EPA chemical-specific toxicity values and target risk levels that are used for site screening and initial cleanup goals.

(uu) "Release" means spill or discharge of hazardous waste, hazardous constituents, or material that becomes hazardous waste when released to the environment.

(vv) "Responsible Party" means the owner or operator of a site, or any other person responsible for the release of hazardous waste or hazardous constituents.

(ww) "Risk-Based Clean Closure" means closure of a site where hazardous waste was managed or any medium that has been contaminated by a release of hazardous waste or hazardous constituents, and where hazardous waste or hazardous constituents remain at the site in any medium at concentrations determined, in Rule R315-101, to cause minimal levels of risk to human health and the environment so as to require no further action or monitoring by the responsible party nor any notice of hazardous waste management on the record of title to the property.

(xx) "Risk-Based Concentration" means the concentration of a contaminant the values of which are derived from equations combining toxicity factors with standard exposure scenarios to calculate chemical concentrations corresponding to some fixed levels of risks in any medium, such as water, air, fish tissue, sediment, and soil.

(yy) "Robust Statistic" means a statistic that is resistant to errors in the results, produced by deviations from assumptions, such as, normality. This means that the limits are not susceptible to outliers, or distributional assumptions. For example, if the limits are centered on the median, instead of on the mean, or on a modified, "robust mean," and constructed with suitable weighting, or influence, or function, they could be considered "robust."

(zz) "Site" means the area of contamination and any other area that could be impacted by the released contaminants, or could influence the migration of those contaminants, regardless of whether the site is owned by the responsible party.

(aaa) "Site Specific Screening Value" means contaminant screening values derived for media, such as soil, sediment, water, at a site based on relevant site assumptions and factors.

(bbb) "Source Control" means a range of actions, for example, removal, treatment in place, and containment, designed to protect human health and the environment by eliminating or minimizing migration of or exposure to significant contamination.

(ccc) "Target Risk" means any acceptable specified risk level. The preferred target risk is $1x10^{-6}$ which is at the protective end of the acceptable risk range for screening of contaminants in risk assessment and considered to be the point of departure.

KEY: hazardous waste
Date of Last Change: March 15, 2023
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-102**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
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City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
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Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-102. Penalty Policy.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	This section allows the Waste Management and Radiation Control Board to make rules establishing minimum standards for protection of human health and the environment for the storage, collection, transport, transfer, recovery, treatment and disposal of solid waste.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments were received from any interested persons either supporting or opposing the rule during or since the last five-year review.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
R315-102 contains the rules used by the Division and the Waste Management and Radiation Control Board to assess and collect civil penalties from those entities that violate the hazardous waste and used oil rules. These rules are required by state code and by federal regulation to maintain primacy from the federal government in control over solid and hazardous waste. Therefore, this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

(a) Subsection 19-6-113(2) of the Utah Solid and Hazardous Waste Act provides that any person who violates any order, plan, rule, or other requirement issued or adopted under the Act is subject in a civil proceeding to a penalty of not more than $13,000 per day for each day of violation. Subsection 19-6-721(1) of the Used Oil Management Act provide that any person who violates any order, plan, rule, or other requirement issued or adopted under the Acts is subject in a civil proceeding to a penalty of not more than $10,000 per day for each day of violation. Subsection 19-6-104(1)(e) of the Utah Solid and Hazardous Waste Act allows the Director to settle or compromise administrative or civil actions initiated to compel compliance with the Act or rules adopted under the Act.

(b) The following criteria are to be used by the Director for determining amounts which (1) may be sought in settlement of enforcement actions, and which (2) may be accepted in settlement of enforcement actions.

(c) The procedures in R315-102 are intended solely for the guidance of the Director and are not intended, and cannot be relied upon, to create a cause of action against the State.

R315-102-2. Criterion 1: Factors.

The Director shall consider the following factors when calculating a settlement amount:

(a) Economic benefit of noncompliance. These are the costs a person may save by delaying or avoiding compliance with applicable laws or rules.

(b) Gravity of the violation. This component of the calculation shall be based on:

(1) the extent of deviation from the rules, and

(2) the potential for harm to human health and the environment, regardless of the extent of harm that actually occurred.

(c) The number of days of noncompliance.

(d) Good faith efforts to comply or lack of good faith. This takes into account the openness in dealing with the violations, promptness in correction of the problems, and the degree of cooperation with the State to include accessibility to information and the amount of State effort necessary to bring the person into compliance.

(e) Degree of willfulness or negligence. Factors to be considered include how much control the violator had over the events constituting the violation, the foreseeability of the events constituting the violation, whether the violator took reasonable precautions to prevent the violation, and whether the violator knew, or should have known, of the hazards associated with the conduct or the legal requirements which were violated.

(f) History of compliance or noncompliance. The settlement amount may be adjusted upward in consideration of previous violations and the degree of recidivism. Likewise, the settlement amount may be adjusted downward when it is shown that the violator has a good compliance record.

(g) Ability to pay. The settlement amount may be adjusted downward based on a person's inability to pay. This should be distinguished from a person's unwillingness to pay. In cases of financial hardship, the Director may accept payment of the settlement under an installment plan, delayed payment schedule, reduced penalty amount, or any combination of these options.

(h) Other unique factors.

R315-102-3. Criterion 2: Calculation of Settlement Amounts.

(a) Violations are grouped into the following categories based on the gravity of the violation:

(1) Major potential for harm, major extent of deviation from the requirement. For used oil, major potential for harm, major extent of deviation from the requirement: $8,000 to $10,000. For hazardous waste or constituents, or solid waste, major potential for harm, major deviation from the requirement: $10,400 to $13,000.

(i) The violation: poses, or may pose, a relatively high risk of exposure of humans or other environmental receptors to hazardous waste or constituents, solid waste, or used oil; or has, or may have, a relatively high adverse effect on statutory or regulatory purposes or procedures for implementing the hazardous waste, solid waste, or used oil programs.

(ii) The violator deviates from requirements of the regulation or statute to such an extent that most, or important aspects, of the requirements are not met, resulting in substantial noncompliance.

(2) Major potential for harm, moderate extent of deviation from the requirement. For used oil, major potential for harm, moderate deviation from the requirement: $6,000 to $8,000. For hazardous waste or constituents, or solid waste, major potential for harm, moderate deviation from the requirement: $7,800 to $10,400.

(i) The violation: poses, or may pose, a relatively high risk of exposure of humans or other environmental receptors to hazardous waste or constituents, solid waste, or used oil; or has, or may have, a relatively high adverse effect on statutory or regulatory purposes or procedures for implementing the hazardous waste, solid waste, or used oil programs.

(ii) The violator significantly deviates from the requirements of the regulation or statute but some of the requirements are implemented as intended.

(3) Major potential for harm, minor extent of deviation from the requirement. For used oil, major potential for harm, minor deviation from the requirement: $4,400 to $6,000. For hazardous waste or constituents, or solid waste, major potential for harm, minor deviation from the requirement: $5,720 to $7,800.

(i) The violation: poses, or may pose, a relatively high risk of exposure of humans or other environmental receptors to hazardous waste or constituents, solid waste, or used oil; or has, or may have, a relatively high adverse effect on statutory or regulatory purposes or procedures for implementing the hazardous waste, solid waste, or used oil programs.

(ii) The violator deviates somewhat from the regulatory or statutory requirements but most, or all important aspects, of the requirements are met.

(4) Moderate potential for harm, major extent of deviation. For used oil, moderate potential for harm, major deviation from the requirement: $3,200 to $4,400. For hazardous waste or constituents, or solid waste, moderate potential for harm, major deviation from the requirement: $4,160 to $5,720.

(i) The violation: poses, or may pose, a medium risk of exposure of humans or other environmental receptors to hazardous waste or constituents, solid waste, or used oil; or has, or may have, a medium adverse effect on statutory or regulatory purposes or procedures for implementing the hazardous waste, solid waste or used oil programs.

(ii) The violator deviates from requirements of the regulation or statute to such an extent that most, or important aspects, of the requirements are not met, resulting in substantial noncompliance.

(5) Moderate potential for harm, moderate extent of deviation from the requirement. For used oil, moderate potential for harm, moderate deviation from the requirement: $2,000 to $3,200. For hazardous waste or constituents, or solid waste, moderate potential for harm, moderate deviation from the requirement: $2,600 to $4,160.

(i) The violation: poses, or may pose, a medium risk of exposure of humans or other environmental receptors to hazardous waste or constituents, solid waste, or used oil; or has, or may have, a medium adverse effect on statutory or regulatory purposes or procedures for implementing the hazardous waste, solid waste or used oil programs.

(ii) The violator significantly deviates from the requirements of the regulation or statute but some of the requirements are implemented as intended.

(6) Moderate potential for harm, minor extent of deviation from the requirement. For used oil, moderate potential for harm, minor deviation from the requirement: $1,200 to $2,000. For hazardous waste or constituents, or solid waste, moderate potential for harm, minor deviation from the requirement: $1,560 to $2,600.

(i) The violation: poses, or may pose, a medium risk of exposure of humans or other environmental receptors to hazardous waste or constituents, solid waste, or used oil; or has, or may have, a medium adverse effect on statutory or regulatory purposes or procedures for implementing the hazardous waste, solid waste or used oil programs.

(ii) The violator deviates somewhat from the regulatory or statutory requirements but most, or all important aspects, of the requirements are met.

(7) Minor potential for harm, major extent of deviation from the requirement. For used oil, minor potential for harm, major deviation for the requirement: $600 to $1,200. For hazardous waste or constituents, or solid waste, minor potential for harm, major deviation from the requirement: $780 to $1,560.

(i) The violation: poses, or may pose, a relatively low risk of exposure of humans or other environmental receptors to hazardous waste or constituents, solid waste, or used oil; or has, or may have, a small adverse effect on statutory or regulatory purposes or procedures for implementing the hazardous waste, solid waste, or used oil programs.

(ii) The violator deviates from requirements of the regulation or statute to such an extent that most, or important aspects, of the requirements are not met, resulting in substantial noncompliance.

(8) Minor potential for harm, moderate extent of deviation from the requirements. For used oil, minor potential for harm, moderate deviation from the requirement: $200 to $600. For hazardous waste or constituents, or solid waste, minor potential for harm, moderate deviation from the requirement: $260 to $780.

(i) The violation: poses, or may pose, a relatively low risk of exposure of humans or other environmental receptors to hazardous waste or constituents, solid waste, or used oil; or has, or may have, a small adverse effect on statutory or regulatory purposes or procedures for implementing the hazardous waste, solid waste, or used oil programs.

(ii) The violator significantly deviates from the requirements of the regulation or statute but some of the requirements are implemented as intended.

(9) Minor potential for harm, minor extent of deviation from the requirements. For used oil, minor potential for harm, minor deviation from the requirement: $40 to $200. For hazardous waste or constituents, or solid waste, minor potential for harm, minor deviation from the requirement: $50 to $260.

(i) The violation: poses, or may pose, a relatively low risk of exposure of humans or other environmental receptors to hazardous waste or constituents, solid waste, or used oil; or has, or may have, a small adverse effect on statutory or regulatory purposes or procedures for implementing the hazardous waste, solid waste, or used oil programs.

(ii) The violator deviates somewhat from the regulatory or statutory requirements but most, or all important aspects, of the requirements are met.

(b) The Director shall have the discretion to determine the appropriate amount within these ranges.

(c) If applicable, a multi-day component may be added to the settlement amount determined in R315-102-3(b). The amount used in a multi-day calculation will typically range from 5% to 20%, with a minimum of $40 per day for used oil, and with a minimum of $50 per day for hazardous waste or constituents, or solid waste, of the amount determined in R315-102-3(b) for each day of violation up to 179 days following the first day of violation. However, discretion is retained to consider amounts (1) of up to $10,000 per day of violation for used oil and up to $13,000 per day of violation for hazardous waste or constituents, or solid waste and (2) for days of violation after the first 179 days following the first day of violation.

(d) The amount calculated above may be adjusted by taking into account the factors specified in R315-102-2(d) through (h).

(e) This amount will then be added to any economic benefit gained by the person as specified in R315-102-2(a).

(f) If applicable, partial credit may be given for an approved supplemental environmental project.

KEY: hazardous waste
Date of Enactment or Last Substantive Amendment: April 25, 2013
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-103**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
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Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-103. Commercial Hazardous Waste Facility Siting Criteria.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Subsection 19-6-105(3)	This subsection requires the Waste Management and Radiation Control Board to establish criteria for siting commercial hazardous waste treatment, storage, or disposal facilities.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments were received from any interested persons either supporting or opposing the rule during or since the last five-year review.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
R315-103 contains the rules that allow the Division to ensure that commercial hazardous waste treatment, storage and disposal facilities are sited properly. These rules ensure that these types of facilities do not have a negative impact on human health and the environment of the community around the facilities. Without these rules there would not be any requirements for the siting of hazardous waste treatment, storage and disposal facilities which would result in detrimental impacts to human health and the environment and therefore, this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-103. Commercial Hazardous Waste Facility Siting Criteria.
R315-103-1. Commercial Hazardous Waste Facility Siting Criteria - Authority.

Subsection 19-6-105(3) requires that criteria for siting commercial hazardous waste treatment, storage, and disposal facilities be established.

R315-103-2. Commercial Hazardous Waste Facility Siting Criteria - Applicability.

Rule R315-103 applies to all permit applications for commercial hazardous waste treatment, storage, and disposal facilities.

R315-103-3. Commercial Hazardous Waste Facility Siting Criteria - Land Use Compatibility and Location.

(a) Siting of commercial hazardous waste treatment, storage, and disposal facilities, including commercial hazardous waste incinerators, is prohibited within:

(1) national, state, and county parks, monuments, and recreation areas; designated wilderness and wilderness study areas; wild and scenic river areas;

(2) ecologically and scientifically significant natural areas, including but not limited to, wildlife management areas and habitat for listed or proposed endangered species as designated pursuant to the Endangered Species Act of 1982;

(3) 100 year floodplains, unless, for non-land based facilities only, the conditions found in subsection R315-264-18 are met to the satisfaction of the Director;

(4) 200 ft. of Holocene faults;

(5) underground mines, salt domes and salt beds;

(6) dam failure flood areas;

(7) areas likely to be impacted by landslide, mudflow, or other earth movement;

(8) farmlands classified or evaluated as "prime," "unique," or of "statewide importance" by the U.S. Department of Agriculture Soil Conservation Service under the Prime Farmland Protection Act;

(9) areas above aquifers containing ground water which has a total dissolved solids (TDS) content of less than 500 mg/l and which does not exceed applicable ground water quality standards for any contaminant. Land disposal facilities are also prohibited above aquifers containing ground water which has a TDS content of less than 3000 mg/l and which does not exceed applicable ground water quality standards for any contaminant. Non-land-based facilities above aquifers containing ground water which has a TDS content of 500 to 3000 mg/l and all facilities above aquifers containing ground water which has a TDS content between 3000 and 10,000 mg/l are permitted only where the depth to ground water is greater than 100 ft. The applicant for the proposed facility shall make the demonstration of ground water quality necessary to determine the appropriate aquifer classification;

(10) recharge zones of aquifers containing ground water which has a TDS content of less than 3000 mg/l. Land disposal facilities are also prohibited in recharge zones of aquifers containing ground water which has a TDS content of less than 10,000 mg/l;

(11) designated drinking water source protection areas or, if no source protection area is designated, a distance to existing drinking water wells and watersheds for public water supplies of one year ground water travel time plus 1000 feet for non-land-based facilities and five years ground water travel time plus 1000 feet for land disposal facilities. This requirement does not include on-site facility operation wells. The applicant for the proposed facility shall make the demonstration, acceptable to the Director, of hydraulic conductivity and other information necessary to determine the one or five year ground water travel distance as applicable. The facility operator may be required to conduct vadose zone or other near surface monitoring if determined to be necessary and appropriate by the Director;

(12) five miles of existing permanent dwellings, residential areas, and other incompatible structures including, but not limited to, schools, churches, and historic structures;

(13) five miles of surface waters including intermittent streams, perennial streams, rivers, lakes, reservoirs, estuaries, and wetlands; and

(14) 1000 ft. of archeological sites to which adverse impacts cannot reasonably be mitigated.

R315-103-4. Commercial Hazardous Waste Facility Siting Criteria - Emergency Response and Transportation Safety.

(a) An assessment of the availability and adequacy of emergency services, including medical and fire response, shall be included in the permit application. The application shall also contain evidence that emergency response plans have been coordinated with local and regional emergency response personnel. The permit may be delayed or denied if these services are deemed inadequate.

(b) Trained emergency response personnel and equipment are to be retained by the facility and be capable of responding to emergencies both at the site and involving wastes being transported to and from the facility within the state. Details of the proposed emergency response capability shall be given in the permit application and shall be stipulated in the permit.

(c) Proposed routes of transport within the state shall be specified in the permit application. No hazardous waste shall be transported on roads where weight restrictions for the road or any bridge on the road will be exceeded in the selected route of travel. Prime consideration in the selection of routes shall be given to roads which bypass population centers. Route selection should consider residential and non-residential populations along the route; the width, condition, and types of roads used; roadside development along the route; seasonal and climatic factors; alternate emergency access to the facility site; the type, size, and configuration of vehicles expected to be hauling to the site; transportation restrictions along the proposed routes; and the transportation means and routes available to evacuate the population at risk in the event of a major accident, including spills and fires.

R315-103-5. Commercial Hazardous Waste Facility Siting Criteria - Exemptions.

Exemptions from the criteria of this section may be granted upon application on a case by case basis by the Waste Management and Radiation Control Board after an appropriate public comment period and when the Board determines that there will be no adverse impacts to public health or the environment. The Board cannot grant exemptions which would conflict with applicable regulations and restrictions of other regulatory authorities.

R315-103-6. Commercial Hazardous Waste Facility Siting Criteria - Completeness of Application.

The permit application shall not be considered complete until the applicant demonstrates compliance with the criteria given herein.

R315-103-7. Commercial Hazardous Waste Facility Siting Criteria - Siting Authority.

It is recognized that Titles 10 and 17 of the Utah Code give cities and counties authority for local land use planning and zoning. Nothing in these rules precludes cities and counties from establishing additional requirements as provided by applicable state and federal law.

KEY: hazardous waste, commercial facility siting
Date of Enactment or Last Substantive Amendment: April 15, 2016
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105(3)

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-124**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-124. Procedures for Decisionmaking.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	Subsection 19-6-105(1)(f) allows the Waste Management and Radiation Control Board to make rules governing public hearings and participation.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments were received from any interested persons either supporting or opposing the rule during or since the last five-year review.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
R315-124 contains the rules and procedures that the Division will follow in receiving permit applications, preparing draft permits, assembling an administrative record, issuing public notice, inviting public comment, responding to comments, holding public hearings, issuing a final permit decision, and allowing for administrative appeal of the final permit decisions. These are all required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315-124-1. Procedures for Decisionmaking -- Applicability.

Unless otherwise stated, Rule R315-124 applies to any actions by the director taken under Rules R315-17, R315-101, R315-102, R315-260 through R315-266, R315-268, R315-270, R315-273, or R315-301 through R315-320.

R315-124-3. Procedures for Decisionmaking -- Application for a Permit.

(a)(1) Any person who requires a permit, for a hazardous or nonhazardous waste treatment, storage or disposal facility under Section 19-6-108 shall complete, sign, and submit to the director an application for each permit required under Section R315-270-1 or Rule R315-310. Applications are not required for permits by rule under Section R315-270-60 or Rule R315-318.

(2) The director is not required to begin the processing of a permit until the applicant has fully complied with the application requirements for that permit as found in Sections R315-270-10, R315-270-13, and Rule R315-310.

(3) Permit applications shall comply with the applicable signature and certification requirements of Section R315- 270-11 or R315-310-2.

(b) Reserved.

(c) The director shall review for completeness every application for a permit. Upon completing the review, the director shall notify the applicant in writing whether the application is complete. If the application is incomplete, the director shall list the information necessary to make the application complete. If the application is for an existing facility, the director shall specify in the notice of deficiency a date for submitting the necessary information. The director shall notify the applicant that the application is complete upon receiving this information. After the application is completed, the director may request additional information from an applicant to clarify, modify, or supplement previously submitted material. Requests for additional information will not make an application incomplete.

(d) If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied and appropriate enforcement actions may be taken under applicable provisions of the Utah Solid and Hazardous Waste Act.

(e) If the director decides that a site visit is necessary for any reason in conjunction with the processing of an application, the director shall notify the applicant and a date shall be scheduled.

(f) The effective date of an application is the date that the director notifies the applicant that the application is complete as provided in Subsection R315-124-3(c).

(g) For each permit application, the director shall, no later than the effective date of the application, prepare and mail to the applicant a schedule of the target dates that the director intends to:

(1) prepare a draft permit;

(2) give public notice;

(3) complete the public comment period, including any public hearing; and

(4) issue a final permit.

R315-124-5. Procedures for Decisionmaking -- Modification, Revocation and Reissuance, or Termination of Permits.

(a) Permits may be modified, revoked and reissued, or terminated either at the request of any interested person, including the permittee, or upon the director's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in Sections R315-270-41, R315-270-43 or Subsection R315-311-2(1). Each request shall be in writing and shall contain facts or reasons supporting the request.

(b) If the director decides the request to modify, revoke and reissue, or terminate a permit is not justified, the director shall either send the requester a brief written response giving a reason for the decision or submit the request to public notice, comment, or hearings. The director's decision to deny a request constitutes a permit order under Rule R305-7 and may be appealed by following the requirements of Sections R305-7-201 through R305-7-217.

(c)(1) If the director tentatively decides to modify a nonhazardous waste or hazardous waste facility permit or revoke and reissue a hazardous waste facility permit under Section R315-270-41 or Subsection R315-270-42(c), the director shall prepare a draft permit under Section R315-124-6 incorporating the proposed changes. The director may request additional information and, in the case of a modified permit, may require the submission of an updated application. In the case of revoked and reissued permits the director shall require the submission of a new application.

(2) In a permit modification under Section R315-124-5, only those conditions to be modified shall be reopened when a draft permit is prepared. The other aspects of the existing permit shall remain in effect. If a permit is revoked and reissued under Section R315-124-5, the entire permit is reopened just as if the permit had expired and were being reissued. During any revocation and reissuance proceeding the permittee shall comply with the conditions of the existing permit until a new final permit is reissued.

(3) Classes 1 and 2 modifications as defined in Subsections R315-270-42(a), R315-270-42(b), and minor modifications defined in Subsection R315-311-2(1) are not subject to the requirements of Section R315-124-5.

(d) If the director tentatively decides to terminate a permit under Section R315-270-43 or Subsection R315-311-2(3) the director shall issue a notice of intent to terminate. A notice of intent to terminate is a type of draft permit that follows the procedures for a draft permit prepared under Section R315-124-6.

(e) Each draft permit, including notices of intent to terminate, prepared under Section R315-124-5 shall be based on the administrative record as defined in Section R315-124-9.

R315-124-6. Procedures for Decisionmaking -- Draft Permits.

(a) Once an application is complete, the director shall tentatively decide whether to prepare a draft permit or to deny the application.

(b) If the director tentatively decides to deny the permit application, the director shall issue a notice of intent to deny. A notice of intent to deny the permit application is a type of draft permit that follows the procedures for a draft permit prepared under Section R315-124-6. If the director's final decision is that the tentative decision to deny the permit application was incorrect, the director shall withdraw the notice of intent to deny and prepare a draft permit under Subsection R315-124-6(d).

(c) Reserved.

(d) If the director decides to prepare a draft permit, the director shall prepare a draft permit that contains the following information:

(1) each condition under Sections R315-270-30 and R315-270-32 for hazardous waste facilities;

(2) each compliance schedule under Section R315-270-33 for hazardous waste facilities;

(3) the monitoring requirements under Section R315-270-31 for hazardous waste facilities;

(4) the information required for permits issued under Rules R315-15, R315-17, and R315-301 through R315-320; and

(5) standards for treatment, storage, and disposal, or any combination of the three, and other permit conditions under Section R315-270-30 for hazardous waste facilities.

(e) Each draft permit prepared by the director under Section R315-124-6 shall be accompanied by a statement of basis or fact sheet, and shall be based on the administrative record, publicly noticed and made available for public comment. The director shall give notice of opportunity for a public hearing, issue a final decision, and respond to comments.

R315-124-7. Procedures for Decisionmaking -- Statement of Basis.

The director shall prepare a statement of basis for every draft permit that a fact sheet under Section R315-124-8 is not prepared. The statement of basis shall briefly describe the conditions of the draft permit and the reasons for them or, in the case of notices of intent to deny or terminate, reasons supporting the tentative decision. The statement of basis shall be sent to the applicant and, on request, to any other person.

R315-124-8. Procedures for Decisionmaking -- Fact Sheet.

(a) A fact sheet shall be prepared for every draft permit if a statement of basis is not prepared. The fact sheet shall briefly set forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. The director shall send this fact sheet to the applicant and, on request, to any other person.

(b) The fact sheet shall include, when applicable:

(1) a brief description of the type of facility or activity that is the subject of the draft permit;

(2) the type and quantity of wastes, fluids, or pollutants that are proposed to be or are being treated, stored, disposed of, injected, emitted, or discharged;

(3) Reserved;

(4) a brief summary of the basis for the draft permit conditions, including references to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by Section R315-124-9;

(5) reasons why any requested variances or alternatives to required standards were granted or denied;

(6) a description of the procedures for reaching a final decision on the draft permit including:

(i) the beginning and ending dates of the comment period under Section R315-124-10 and the address where comments will be received;

(ii) procedures for requesting a hearing and the nature of that hearing; and

(iii) any other procedures that the public may participate in the final decision;

(7) name and telephone number of a person to contact for additional information.

R315-124-9. Procedures for Decisionmaking -- Administrative Record for Draft Permits.

(a) The provisions of a draft permit prepared by the director under Section R315-124-6 shall be based on the administrative record defined in Section R305-7-209 and Section R315-124-18.

(b) Section R315-124-9 applies to draft permits when public notice was given after the effective date of Rule R315-124.

R315-124-10. Procedures for Decisionmaking -- Public Notice of Permit Actions and Public Comment Period.

(a) Scope.

(1) The director shall give public notice that the following actions have occurred:

(i) a permit application has been tentatively denied under Subsection R315-124-6(b); or

(ii) a draft permit has been prepared under Subsection R315-124-6(d); or

(iii) a hearing has been scheduled under Section R315-124-12;

(2) Unless the director decides to submit the request to public notice, comment, or hearing under Subsection R315-124-5(b), no public notice is required if a request for permit modification, revocation and reissuance, or termination is denied under Subsection R315-124-5(b). Written notice of that denial shall be given to the requester and to the permittee.

(3) Public notices may describe more than one permit or permit actions.

(b) Timing.

(1) Public notice of the preparation of a draft permit, including a notice of intent to deny a permit application, required under Subsection R315-124-10(a) shall allow at least 45 days for public comment.

(2) Public notice of a public hearing shall be given at least 30 days before the hearing. Public notice of the hearing may be given at the time of the public notice of the draft permit and the two notices may be combined.

(c) Methods. Public notice of activities described in Subsection R315-124-10(a)(1) shall be given by the following methods:

(1) by mailing or electronic mailing a copy of a notice to the following persons:

(i) the applicant;

(ii) any other agency that the director knows has issued or is required to issue a permit for the facility or activity including EPA;

(iii) federal and state agencies with jurisdiction over fish, shellfish, and wildlife resources, state historic preservation officers, including any affected states, and indian tribes;

(iv) through (viii) Reserved;

(ix) persons on a mailing list developed by:

(A) including those who request in writing to be on the list;

(B) soliciting persons for area lists from participants in past permit proceedings in that area; and

(C) notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in publications such as regional and state funded newsletters, environmental bulletins, state law journals, or through the department web page. The director may update the mailing list from time to time by requesting written indication of continued interest from those listed. The director may delete from the list the name of any person who fails to respond to such a request.

(x)(A) to any unit of local government having jurisdiction over the area where the facility is proposed to be located; and

(B) to each state agency having any authority under state law with respect to the construction or operation of the facility;

(2)(i) Reserved;

(ii) publication of a notice in a daily or weekly major local newspaper of general circulation for hazardous waste facilities and nonhazardous solid waste management facilities and broadcast over local radio stations for hazardous waste facilities;

(3) in a manner constituting legal notice to the public under state law; and

(4) any other method reasonably calculated to give notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

(5) Any person otherwise entitled to receive notice under Subsection R315-124-10(c) may waive their rights to receive notice for any classes and categories of permits.

(d) Contents.

(1) Each public notice issued under Rule R315-124 shall contain the following minimum information:

(i) Division of Waste Management and Radiation Control, P.O. Box 144880, Salt Lake City, Utah 84114-4880;

(ii) name and address of the permittee or permit applicant and, if different, of the facility or activity regulated by the permit;

(iii) a brief description of the business conducted at the facility or activity described in the permit application or the draft permit;

(iv) name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, statement of basis or fact sheet, and the application; and

(v) a brief description of the comment procedures required by Sections R315-124-11 and R315-124-12 and the time and place of any hearing that will be held, including a statement of procedures to request a hearing, unless a hearing has already been scheduled, and other procedures that the public may participate in the final permit decision; and

(vi) through (ix) Reserved;

(x) any additional information considered necessary or proper.

(2) Public notices for hearings. In addition to the general public notice described in Subsection R315-124-10(d)(1), the public notice of a hearing under Section R315-124-12 shall contain the following information:

(i) reference to the date of previous public notices relating to the permit;

(ii) date, time, and place of the hearing; and

(iii) a brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

(e) In addition to the general public notice described in Subsection R315-124-10(d)(1), the persons identified in Subsections R315-124-10(c)(1)(i), R315-124-10(c)(1)(ii), and R315-124-10(c)(1)(iii) shall be mailed or provided electronically a copy of the fact sheet or statement of basis.

R315-124-11. Procedures for Decisionmaking -- Public Comments and Requests for Public Hearings.

During the public comment period provided under Section R315-124-10, any interested person may submit written comments on the draft permit and may request a public hearing, if no hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. Each comment shall be considered in making the final decision and shall be answered as provided in Section R315-124-17.

R315-124-12. Procedures for Decisionmaking -- Public Hearings.

(a)(1) The director shall hold a public hearing when the director finds, on the basis of requests, a significant degree of public interest in a draft permit or permits;

(2) The director may also hold a public hearing at the director's discretion, when, for instance, such a hearing might clarify one or more issues involved in the permit decision;

(3)(i) The director shall hold a public hearing when the director receives written notice of opposition to a draft permit and a request for a hearing within 45 days of public notice under Subsection R315-124-10(b)(1);

(ii) When possible the director shall schedule a hearing under Section R315-124-12 at a location convenient to the nearest population center to the proposed facility;

(4) Public notice of the hearing shall be given as specified in Section R315-124-10.

(b) When a public hearing will be held, the director shall designate a presiding officer for the hearing who shall be responsible for its scheduling and orderly conduct.

(c) Any person may submit oral or written statements and data concerning the draft permit. Reasonable limits may be set upon the time allowed for oral statements, and the submission of statements in writing may be required. The public comment period under Section R315-124-10 shall automatically be extended to the close of any public hearing under Section R315-124-12. The presiding officer may also extend the comment period by so stating at the hearing.

(d) An electronic recording or written transcript of the hearing shall be made available to the public.

R315-124-13. Procedures for Decisionmaking -- Obligation to Raise Issues and Provide Information During the Public Comment Period.

Each person, including applicants, who believe any condition of a draft permit is inappropriate or that the director's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, shall raise any reasonably ascertainable issues and submit each reasonably available argument supporting their position by the close of the public comment period, including any public hearing, under Section R315-124-10. Any supporting materials that are submitted shall be included in full and may not be incorporated by reference, unless they are already part of the administrative record in the proceeding, or consist of state or federal statutes and regulations, EPA or division documents of general applicability, or other generally available reference materials. Commenters shall make supporting materials not already included in the administrative record available to the director as directed by the director and consistent with Section R305-7-209. A comment period longer than 45 days may be necessary to give commenters a reasonable opportunity to comply with the requirements of Section R315-124-13. Additional time shall be granted under Section R315-124-10 to the extent that a commenter who requests additional time demonstrates the need for additional time.

R315-124-15. Procedures for Decisionmaking -- Issuance and Effective Date of Permit.

(a) After the close of the public comment period under Section R315-124-10 on a draft permit, the director shall issue a final permit decision, or a decision to deny a permit for the active life of a hazardous waste management facility or unit under Section R315-270-29. The director shall notify the applicant and each person who has submitted written comments or requested notice of the final permit decision. This notice shall include reference to the procedures for appealing a decision on a hazardous waste permit or a decision to terminate a hazardous waste permit. For the purposes of Section R315-124-15, a final permit decision means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit.

(b) A final permit decision, or a decision to deny a permit for the active life of a hazardous waste management facility or unit under Section R315-270-29, shall become effective upon issuance, unless:

(1) a later effective date is specified in the decision; or

(2) review is requested on the permit under Rule R305-7 and a stay is granted under Subsection 19-1-301.5(17).

R315-124-16. Procedures for Decisionmaking -- Stays of Contested Permit Conditions.

The provisions covering appeals and stays are found in Rule R305-7 and Subsection 19-1-301.5(17).

R315-124-17. Procedures for Decisionmaking -- Response to Comments.

(a) When any final permit decision is issued under Section R315-124-15, the director shall issue a response to comments. This response shall:

(1) specify the provisions, if any, of the draft permit that have been changed in the final permit decision, and the reasons for the change; and

(2) briefly describe and respond to each significant comment on the draft permit or the permit application raised during the public comment period, or during any hearing.

(b) Any documents cited in the response to comments shall be included in the administrative record for the final permit decision as defined in Section R315-124-18. If new points are raised or new material supplied during the public comment period, the director may document the response to those matters by adding new materials to the administrative record.

R315-124-18. Procedures for Decisionmaking -- Administrative Record for Final Permit.

(a) The director shall base final permit decisions under Section R315-124-15 on the administrative record defined in Section R315-124-18.

(b) The administrative record for any final permit shall consist of the administrative record for the draft permit and:

(1) any comments received during the public comment period provided under Section R315-124-10;

(2) the recording or transcript of any hearings held under Section R315-124-12;

(3) any written materials submitted at such a hearing;

(4) the response to comments required by Section R315-124-17 and any new material placed in the record under that section;

(5) Reserved;

(6) other documents contained in the supporting file for the permit; and

(7) the final permit.

(c) The additional documents required under Subsection R315-124-18(b) should be added to the record as soon as possible after their receipt or publication by the division. The record shall be complete on the date the final permit is issued.

(d) Section R315-124-18 applies to any final permits if the draft permit was subject to the administrative record requirements of Section R315-124-9.

(e) Material readily available at the division office, or published materials that are generally available and that are included in the administrative record under the standards of Section R315-124-18 or R315-124-17, need not be physically included in the file with the rest of the record as long as it is specifically referred to in the statement of basis or fact sheet or in the response to comments.

R315-124-19. Procedures for Decisionmaking -- Appeal of Permits.

(a) Petitioning for review of a permit decision.

(1) Initiating an appeal. Except for a decision to terminate a permit, appeal from a final permit decision issued under Section R315-124-15, or a decision to deny a permit for the active life of a hazardous waste management facility or unit under Section R315-270-29 is commenced by filing a Petition for Review as described in Section R305-7-203. In accordance with Subsection 19-1-301.5(1)(f)(ii) appeal from a decision to terminate a permit is commenced by filing a Request for Agency Action as described in Rule R305-7.

R315-124-20. Procedures for Decisionmaking -- Computation of Time.

(a) Any time period scheduled to begin on the occurrence of an act or event shall begin on the day after the act or event.

(b) Any time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends on the day before the act or event.

(c) If the final day of any time period falls on a weekend or legal holiday, the time period shall be extended to the next working day.

(d) When an interested person may or shall act within a prescribed period after the service of notice or other paper upon the interested person by mail, three days shall be added to the prescribed time.

(e) The computations of time specified in Section R315-124-20 do not supersede the computations of time in Rule R305-7.

R315-124-31. Procedures for Decisionmaking -- Pre-Application Public Meeting and Notice.

(a) Applicability. The requirements of Section R315-124-31 shall apply to any part B applications seeking initial permits for hazardous waste management units. The requirements of Section R315-124-31 shall also apply to part B applications seeking renewal of permits for hazardous waste management units if the renewal application is proposing a significant change in facility operations. For the purposes of Section R315-124-31, a significant change is any change that would qualify as a class 3 permit modification under Section R315-270-42. The requirements of Section R315-124-31 do not apply to permit modifications under Section R315-270-42, a nonhazardous solid waste management facility, or to applications that are submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

(b) Before the submission of a part B permit application for a facility, the applicant shall hold at least one meeting with the public to solicit questions from the community and inform the community of proposed hazardous waste management activities. The applicant shall post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.

(c) The applicant shall submit a summary of the meeting, along with the list of attendees and their addresses developed under Subsection R315-124-31(b), and copies of any written comments or materials submitted at the meeting, to the director as a part of the part B application, in accordance with Subsection R315-270-14(b).

(d) The applicant shall provide public notice of the pre-application meeting at least 30 days before the meeting. The applicant shall maintain, and provide to the director upon request, documentation of the notice.

(1) The applicant shall provide public notice in each of the following forms:

(i) A newspaper notice. The applicant shall publish a notice, fulfilling the requirements in Subsection R315-124-31(d)(2), in a newspaper of general circulation in the county or equivalent jurisdiction that hosts the proposed location of the facility. In addition, the director shall instruct the applicant to publish the notice in newspapers of general circulation in adjacent counties or equivalent jurisdictions, if the director determines that the publication is necessary to inform the affected public.

(ii) A visible and accessible sign. The applicant shall post a notice on a clearly marked sign at or near the facility, fulfilling the requirements in Subsection R315-124-31(d)(2). If the applicant places the sign on the facility property, then the sign shall be large enough to be readable from the nearest point where the public would pass by the site.

(iii) A broadcast media announcement. The applicant shall broadcast a notice, fulfilling the requirements in Subsection R315-124-31(d)(2), at least once on at least one local radio station or television station. The applicant may use another medium with prior approval of the director.

(iv) A notice to the permitting agency. The applicant shall send a copy of the newspaper notice to the director and to the appropriate local government, in accordance with Subsection R315-124-10(c)(1)(x).

(2) The notices required under Subsection R315-124-31(d)(1) shall include:

(i) the date, time, and location of the meeting;

(ii) a brief description of the purpose of the meeting;

(iii) a brief description of the facility and proposed operations, including the address or a map, for example, a sketched or copied street map, of the facility location;

(iv) a statement encouraging people to contact the facility at least 72 hours before the meeting if they need special access to participate in the meeting; and

(v) the name, address, and telephone number of a contact person for the applicant.

R315-124-32. Procedures for Decisionmaking -- Public Notice Requirements at the Application Stage.

(a) Applicability. The requirements of Section R315-124-32 shall apply to part B applications seeking initial permits for hazardous waste management units. The requirements of Section R315-124-32 shall also apply to part B applications seeking renewal of permits for hazardous waste management units under Section R315-270-51. The requirements of Section R315-124-32 do not apply to permit modifications under Section R315-270-42, a nonhazardous solid waste facility, or permit applications submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

(b) Notification at application submittal.

(1) The director shall provide public notice as set forth in Subsection R315-124-10(c)(1)(ix), and notice to appropriate units of state and local government as set forth in Subsection R315-124-10(c)(1)(x), that a part B permit application has been submitted to the director and is available for review.

(2) The notice shall be published within a reasonable period after the application is received by the director. The notice shall include:

(i) the name and telephone number of the applicant's contact person;

(ii) the name and telephone number of the division, and a mailing address where information, opinions, and inquiries may be directed throughout the permit review process;

(iii) an address or email address where people can write to be put on the facility mailing list;

(iv) the location where copies of the permit application and any supporting documents can be viewed and copied;

(v) a brief description of the facility and proposed operations, including the address or a map, for example, a sketched or copied street map, of the facility location on the front page of the notice; and

(vi) the date that the application was submitted.

(c) Concurrent with the notice required under Subsection R315-124-32(b), the director shall place the permit application and any supporting documents in a location accessible to the public in the vicinity of the facility or at the division's office.

R315-124-33. Procedures for Decisionmaking -- Information Repository.

(a) Applicability. The requirements of Section R315-124-33 apply to applications seeking permits for hazardous waste management units.

(b) The director may assess the need, on a case-by-case basis, for an information repository. When assessing the need for an information repository, the director shall consider a variety of factors, including: the level of public interest; the type of facility; the presence of an existing repository; and the proximity to the nearest copy of the administrative record. If the director determines, at any time after submittal of a permit application, that there is a need for a repository, then the director shall notify the facility that it shall establish and maintain an information repository. See Subsection R315-270-30(m) for similar provisions relating to the information repository during the life of a permit.

(c) The information repository shall contain the documents, reports, data, and information deemed necessary by the director to fulfill the purposes of the repository. The director shall have the discretion to limit the contents of the repository.

(d) The information repository shall be located and maintained at a site chosen by the facility. If the director finds the site unsuitable for the purposes and persons that it was established, due to problems with the location, hours of availability, access, or other relevant considerations, then the director shall specify a more appropriate site.

(e) The director shall specify requirements for informing the public about the information repository. At a minimum, the director shall require the facility to provide a written notice about the information repository to the individuals on the facility mailing list.

(f) The facility owner or operator shall be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the director. The director may close the repository at the director's discretion, based on the factors in Subsection R315-124-33(b).

R315-124-34. Public Participation.

In addition to hearings required under the state Administrative Procedures Act and proceedings otherwise outlined or referenced in Rule R315-124, the director will investigate and provide written response to any citizen complaints submitted. In addition, the director may not oppose intervention in any civil or administrative proceeding by any citizen if permissive intervention may be authorized by statute, rule or regulation. The director shall publish notice of and provide at least 30 days for public comment on any proposed settlement of any enforcement action.

KEY: hazardous waste
Date of Last Change: January 16, 2024
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-260**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:

R315-260. Hazardous Waste Management System

3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:

Section 19-1-301	This section governs adjudicative proceedings that are not special adjudicative proceedings. It allows the department executive director to appoint an administrative law judge and contains the minimum requirements for someone to be an administrative law judge. The section also provides states what the administrative law judge and the executive director must do or may do in regards to adjudicative proceedings.
Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.

4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:

No comments were received since the last five-year review of this rule.

5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:

Rule R315-260 provides definitions of terms, general standards, and overview information applicable to Rules R315-260 through 265 and 268. These are all required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.

Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a

nonsubstantive change.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-260. Hazardous Waste Management System.
R315-260-1. Purpose, scope, and applicability.

(a) Rule R315-260 provides definitions of terms, general standards, and overview information applicable to Rules R315-260 through 265 and 268.

R315-260-2. Availability of Information and Confidentiality of Information.

(a) Any information provided to The Director under Rules R315-15 and 101; Rules R315-260 through 266, 268, 270 and 273 will be made available to the public to the extent and in the manner authorized by Sections 63G-2-101 through 901.

(b) Except as provided under Subsection R315-260-2(c) and (d), any person who submits information to the Director in accordance with Rules R315-15 and 101; Rules R315-260 through 266, 268, 270 and 273 may assert a claim of business confidentiality covering part or all of that information by following the procedures set forth in Section 63G-2-309. Information covered by such a claim shall be disclosed by the Director only to the extent, and by means of the procedures, set forth Sections 63G-2-101 through 901. However, if no claim under Sections 63G-2-101 through 804 accompanies the information when it is received by the Director, it may be made available to the public without further notice to the person submitting it.

(c)(1) After August 6, 2014, no claim of business confidentiality may be asserted by any person with respect to information entered on a Hazardous Waste Manifest, EPA Form 8700-22, a Hazardous Waste Manifest Continuation Sheet, EPA Form 8700-22A, or an electronic manifest format that may be prepared and used in accordance with Subsection R315-262-20(a)(3).

(2) EPA shall make any electronic manifest that is prepared and used in accordance with Subsection R315-262-20(a)(3), or any paper manifest that is submitted to the system under Subsection R315-264-71(a)(6) or Subsection R315-265-71(a)(6), available to the public under Section R315-260-2 when the electronic or paper manifest is a complete and final document. Electronic manifests and paper manifests submitted to the system are considered by EPA to be complete and final documents and publicly available information after 90 days have passed since the delivery to the designated facility of the hazardous waste shipment identified in the manifest.

(d)(1) After June 26, 2018, no claim of business confidentiality may be asserted by any person with respect to information contained in cathode ray tube export documents prepared, used and submitted under Subsections R315-261-39(a)(5) and 261-41(a), and with respect to information contained in hazardous waste export, import, and transit documents prepared, used and submitted under Sections R315-262-82, 262-83, 262-84, 263-20, 264-12, 264-71, 265-12, and 265-71, whether submitted electronically into EPA's Waste Import Export Tracking System or in paper format.

(2) EPA will make any cathode ray tube export documents prepared, used and submitted under Subsections R315-261-39(a)(5) and 261-41(a), and any hazardous waste export, import, and transit documents prepared, used and submitted under Sections R315-262-82, 262-83, 262-84, 263-20, 264-12, 264-71, 265-12, and 265-71 available to the public under Section R315-260-2 when these electronic or paper documents are considered by EPA to be final documents. These submitted electronic and paper documents related to hazardous waste exports, imports and transits and cathode ray tube exports are considered by EPA to be final documents on March 1 of the calendar year after the related cathode ray tube exports or hazardous waste exports, imports, or transits occur.

R315-260-3. References to Other Statutes and Regulations.

(a) Federal statutes and regulations that are cited in Rules R315-260 through 266, 268, 270, 273 and 124 that are not specifically adopted by reference shall be used as guidance in interpreting the Rules R315-260 through 266, 268, 270, 273 and 124.

(b) Any reference to the "Department of Transportation" or "DOT" in Rules R315-260 through 266, 268, 270, 273 and 124 shall mean the "U.S. Department of Transportation".

R315-260-4. Manifest Copy Submission Requirements for Certain Interstate Waste Shipments.

(a) In any case in which the state in which waste is generated, or the state in which waste will be transported to a designated facility, requires that the waste be regulated as a hazardous waste or otherwise be tracked through a hazardous waste manifest, the designated facility that receives the waste shall, regardless of the state in which the facility is located:

(1) Complete the facility portion of the applicable manifest;

(2) Sign and date the facility certification;

(3) Submit to the e-Manifest system a final copy of the manifest for data processing purposes; and

(4) Pay the appropriate per manifest fee to EPA for each manifest submitted to the e-Manifest system, subject to the fee determination methodology, payment methods, dispute procedures, sanctions, and other fee requirements specified in 40 CFR 264.1300 through 264.1316, which are adopted and incorporated by reference.

R315-260-5. Applicability of Electronic Manifest System and User Fee Requirements to Facilities Receiving State-Only Regulated Waste Shipments.

(a) For purposes of Section R315-260-5, "state-only regulated waste" means:

(1) A non-RCRA waste that a state regulates more broadly under its state regulatory program; or

(2) A RCRA hazardous waste that is federally exempt from manifest requirements, but not exempt from manifest requirements under state law.

(b) In any case in which a state requires a RCRA manifest to be used under state law to track the shipment and transportation of a state-only regulated waste to a receiving facility, the facility receiving such a waste shipment for management shall:

(1) Comply with the provisions of Section R315-264-71, use of the manifest, and Section R315-264-72, manifest discrepancies; and

(2) Pay the appropriate per manifest fee to EPA for each manifest submitted to the e-Manifest system, subject to the fee determination methodology, payment methods, dispute procedures, sanctions, and other fee requirements specified in 40 CFR 264.1300 through 264.1316, which are adopted and incorporated by reference.

R315-260-6. Inspections.

Any duly authorized officer, employee or representative of the Department or the Director may, in accordance with Section 19-6-109, enter upon and inspect any property, premise, or place on or at which solid or hazardous wastes are generated, transported, stored, treated or disposed of for the purpose of ascertaining the compliance with Rules R315-15, R315-101, R315-124, R315-260 through 266, R315-268, R315-270, and R315-273. Inspectors may also inspect any waste and obtain samples thereof, including samples from any vehicle in which wastes are being transported or samples of any containers or labels. Inspectors may also have access to and the right to make copies of any records, either in hard copy or electronic format, relating to compliance with Rules R315-15, R315-101, R315-124, R315-260 through 266, R315-268, R315-270, and R315-273. Inspectors may also take photographs and make video and audio recordings while conducting authorized activities.

R315-260-10. Definitions.

(a) Terms used in Rules R315-15, R315-260 through R315-266, R315-268, R315-270, R315-273, and Rule R315-101 are defined in Sections 19-1-103 and 19-6-102.

(b) Terms used in Rule R315-15 are also defined in Sections 19-6-703 and 19-6-706.

(c) Additional terms used in Rules R315-260 through R315-266, R315-268, R315-270, R315-273, and Rule R315-101 are defined as follows:

(1) "Above ground tank" means a device meeting the definition of "tank" in Section R315-260-10 and that is situated in a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank, including the tank bottom, can be visually inspected.

(2) "Acute hazardous waste" means hazardous wastes that meet the listing criteria in Subsection R315-261-11(a)(2) and therefore are either listed in Section R315-261-31 with the assigned hazard code of (H) or are listed in Subsection R315-261-33(e).

(3) "Active life" of a facility means the period from the initial receipt of hazardous waste at the facility until the director receives certification of final closure.

(4) "Active portion" means that portion of a facility where treatment, storage, or disposal operations are being or have been conducted after November 19, 1980 and that is not a closed portion. See also "closed portion" and "inactive portion."

(5) "Aerosol can" means a non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

(6) "AES filing compliance date" means the date that EPA announces in the Federal Register, on or after which exporters of hazardous waste and exporters of cathode ray tubes for recycling are required to file EPA information in the Automated Export System or its successor system, under the International Trade Data System (ITDS) platform.

(7) "Airbag waste" means any hazardous waste airbag modules or hazardous waste airbag inflators.

(8) "Airbag waste collection facility" means any facility that receives airbag waste from airbag handlers subject to regulation under Subsection R315-261-4(j), and accumulates the waste for more than ten days.

(9) "Airbag waste handler" means any person, by site, who generates airbag waste that is subject to regulation under Rules R315-260 through R315-266, R315-268, R315-270, and R315-273.

(10) "Approved hazardous waste management facility" or "approved facility" means a hazardous waste treatment, storage, or disposal facility that has received an EPA permit in accordance with federal requirements, has been approved under Section 19-6-108 and Rule R315-270, or has been permitted or approved under any other EPA authorized hazardous waste state program.

(11) "Ancillary equipment" means any device including devices such as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to storage or treatment tanks, between hazardous waste storage and treatment tanks to a point of disposal on-site, or to a point of shipment for disposal off-site.

(12) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

(13) "Authorized representative" means the person responsible for the overall operation of a facility or an operational unit that is part of a facility, for example, the plant manager, superintendent or person of equivalent responsibility.

(14) "Battery" means a device consisting of one or more electrically connected electrochemical cells that is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus any connections, electrical and mechanical, as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery that has had the electrolyte removed.

(15) "Boiler" means an enclosed device using controlled flame combustion and having the following characteristics:

(i)(A) The unit shall have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(B) The unit's combustion chamber and primary energy recovery sections shall be of integral design. To be of integral design, the combustion chamber and the primary energy recovery sections, such as waterwalls and superheaters, shall be physically formed into one manufactured or assembled unit. A unit that has the combustion chamber and the primary energy recovery sections

joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment, such as economizers or air preheaters, need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters, units that transfer energy directly to a process stream, and fluidized bed combustion units; and

(C) While in operation, the unit shall maintain a thermal energy recovery efficiency of at least 60 %, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(D) The unit shall export and utilize at least 75 % of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the unit. Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps; or

(ii) The unit is one that the Board has determined, on a case-by-case basis, to be a boiler, after considering the standards in Section R315-260-32.

(16) "Carbon dioxide stream" means carbon dioxide that has been captured from an emission source, for example a power plant, plus incidental associated substances derived from the source materials and the capture process, and any substances added to the stream to enable or improve the injection process.

(17) "Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

(18) "Cathode ray tube" or "CRT" means a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device. A used, intact CRT means a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.

(19) "Central accumulation area" means any on-site hazardous waste accumulation area with hazardous waste accumulating in units subject to either Section R315-262-16, for small quantity generators, or Section R315-262-17, for large quantity generators. A central accumulation area at an eligible academic entity that chooses to operate under Sections R315-262-200 through R315-262-216 is also subject to Section R315-262-211 if accumulating unwanted material or hazardous waste, or both.

(20) "Certification" means a statement of professional opinion based upon knowledge and belief.

(21) "Closed portion" means that portion of a facility that an owner or operator has closed in accordance with the approved facility closure plan and any applicable closure requirements. See also "active portion" and "inactive portion".

(22) "Component" means either the tank or ancillary equipment of a tank system.

(23) "Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

(24) "Contained" means held in a unit, including a land-based unit as defined in Section R315-260-10, that meets the following criteria:

(i) the unit is in good condition, with no leaks or other continuing or intermittent unpermitted releases of the hazardous secondary materials to the environment, and is designed, as appropriate for the hazardous secondary materials, to prevent releases of hazardous secondary materials to the environment. Unpermitted releases are releases that are not covered by a permit, such as a permit to discharge to water or air, and may include; releases through surface transport by precipitation run-off, releases to soil and ground water, wind-blown dust, fugitive air emissions, and catastrophic unit failures;

(ii) the unit is properly labeled or otherwise has a system, such as a log, to immediately identify the hazardous secondary materials in the unit;

(iii) the unit holds hazardous secondary materials that are compatible with other hazardous secondary materials placed in the unit and is compatible with the materials used to construct the unit and addresses any potential risks of fires or explosions; and

(iv) hazardous secondary materials in units that meet the applicable requirements of Rule R315-264 or R315-265 are presumptively contained.

(25) "Container" means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

(26) "Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under Sections R315-264-1100 through R315-264-1102 or Sections R315-265-1100 through R315-265-1102.

(27) "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

(28) "Corrosion expert" means a person who, by reason of their knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. A corrosion expert shall be certified as being qualified by the National Association of Corrosion Engineers (NACE) or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

(29) "CRT collector" means a person who receives used, intact CRTs for recycling, repair, resale, or donation.

(30) "CRT exporter" means any person in the United States who initiates a transaction to send used CRTs outside the United States or its territories for recycling or reuse, or any intermediary in the United States arranging for export.

(31) "CRT glass manufacturer" means an operation or part of an operation that uses a furnace to manufacture CRT glass.

(32) "CRT processing" means conducting each of the following activities:

(i) receiving broken or intact CRTs; and

(ii) intentionally breaking intact CRTs or further breaking or separating broken CRTs; and

(iii) sorting or otherwise managing glass removed from CRT monitors.

(33) "Designated facility" means:

(i) a hazardous waste treatment, storage, or disposal facility that:

(A) has received a permit, or interim status, in accordance with the requirements of Rules R315-270 and R315-124;

(B) has received a permit, or interim status, from a state authorized in accordance with 40 CFR 271; or

(C) is regulated under Subsection R315-261-6(c)(2) or Section R315-266-70; and

(D) that has been designated on the manifest by the generator pursuant to Section R315-262-20.

(ii) "Designated facility" also means a generator site designated on the manifest to receive its waste as a return shipment from a facility that has rejected the waste in accordance with Subsection R315-264-72(f) or R315-265-72(f).

(iii) If a waste is destined to a facility in an authorized state that has not yet received authorization to regulate that particular waste as hazardous, then the designated facility shall be a facility allowed by the receiving state to accept the waste.

(34) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in Subsections R315-273-13(a) and R315-273-13(c) and Section R315-273-33. A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

(35) "Dike" means an embankment or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

(36) "Dioxins and furans (D/F)" means tetra, penta, hexa, hepta, and octa-chlorinated dibenzo dioxins and furans.

(37) "Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

(38) "Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

(39) "Division" means the Division of Waste Management and Radiation Control.

(40) "Drip pad" is an engineered structure consisting of a curbed, free-draining base, constructed of non-earthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

(41) "Electronic import-export reporting compliance date" means the date that EPA announces in the Federal Register, on or after which exporters, importers, and receiving facilities are required to submit certain export and import related documents to EPA using EPA's Waste Import Export Tracking System, or its successor system.

(42) "Elementary neutralization unit" means a device that:

(i) is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in Section R315-261-22, or they are listed in Sections R315-261-30 through R315-261-35 only for this reason; and

(ii) meets the definition of tank, tank system, container, transport vehicle, or vessel in Section R315-260-10.

(43) "Electronic manifest, or e-Manifest" means the electronic format of the hazardous waste manifest that is received from EPA's national e-Manifest system and transmitted electronically to the system, and that is the legal equivalent of EPA Forms 8700-22, Manifest, and 8700-22A, Continuation Sheet.

(44) "Electronic Manifest System, or e-Manifest System" means EPA's national information technology system through which the electronic manifest may be procured, completed, transmitted, and distributed to users of the electronic manifest and to regulatory agencies.

(45) "EPA hazardous waste number" means the number assigned by EPA to each hazardous waste listed in Sections R315-261-30 through R315-261-35 and to each characteristic identified in Sections R315-261-20 through R315-261-24.

(46) "EPA identification number" means the number assigned by EPA to each generator, transporter, and treatment, storage, or disposal facility.

(47) "EPA region" means the states and territories found in any one of the following ten regions:

(i) Region I-Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island.

(ii) Region II-New York, New Jersey, Commonwealth of Puerto Rico, and the U.S. Virgin Islands.

(iii) Region III-Pennsylvania, Delaware, Maryland, West Virginia, Virginia, and the District of Columbia.

(iv) Region IV-Kentucky, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina, and Florida.

(v) Region V-Minnesota, Wisconsin, Illinois, Michigan, Indiana and Ohio.

(vi) Region VI-New Mexico, Oklahoma, Arkansas, Louisiana, and Texas.

(vii) Region VII-Nebraska, Kansas, Missouri, and Iowa.

(viii) Region VIII-Montana, Wyoming, North Dakota, South Dakota, Utah, and Colorado.

(ix) Region IX-California, Nevada, Arizona, Hawaii, Guam, American Samoa, Commonwealth of the Northern Mariana Islands.

(x) Region X-Washington, Oregon, Idaho, and Alaska.

(48) "Equivalent method" means any testing or analytical method approved by the director under Sections R315-260-20 and R315-260-21.

(49) "Existing hazardous waste management (HWM) facility" or "existing facility" means a facility that was in operation or commenced construction on or before November 19, 1980. A facility has commenced construction if:

(i) the owner or operator has received the federal, state and local approvals or permits necessary to begin physical construction; and either

(ii)(A) a continuous on-site, physical construction program has begun; or

(B) the owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for physical construction of the facility to be completed within a reasonable time.

(50) "Existing portion" means that land surface area of an existing waste management unit, included in the original Part A permit application, on which wastes have been placed before the issuance of a permit.

(51) "Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or for which installation has commenced on or before July 14, 1986, or December 16, 1988 for purposes of implementing the non-HSWA requirements of the tank regulations as promulgated by EPA on July 14, 1986, 51 FR 25470, as they have been incorporated into the corresponding rules of Title R315. A non-HSWA existing tank system or non-HSWA tank component is one that does not implement any of the requirements of the federal Hazardous and Solid Waste Amendments of 1984 (HSWA) as identified in Table 1 of 40 CFR 271.1. Installation shall be considered to have commenced if the owner or operator has received any federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

(i) a continuous on-site physical construction or installation program has begun; or

(ii) the owner or operator has entered into contractual obligations, which cannot be cancelled or modified without substantial loss, for physical construction of the site or installation of the tank system to be completed within a reasonable time.

(52) "Explosives or munitions emergency" means a situation involving the suspected or detected presence of unexploded ordnance (UXO), damaged or deteriorated explosives or munitions, an improvised explosive device (IED), other potentially explosive material or device, or other potentially harmful military chemical munitions or device, that creates an actual or potential imminent threat to human health, including safety, or the environment, including property, as determined by an explosives or munitions emergency response specialist. These situations may require immediate and expeditious action by an explosives or munitions emergency response specialist to control, mitigate, or eliminate the threat.

(53) "Explosives or munitions emergency response" means any immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures; treatment or destruction of the explosives or munitions or transporting those items to another location to be made safe, or both; treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance will not terminate the explosives or munitions emergency. Explosives and munitions emergency responses can occur on either public or private lands and are not limited to responses at RCRA facilities.

(54) "Explosives or munitions emergency response specialist" means an individual trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, or destruction techniques. Explosives or munitions emergency response specialists include Department of Defense (DOD) emergency explosive ordnance disposal (EOD), technical escort unit (TEU), and DOD-certified civilian or contractor personnel; and other federal, state, or local government, or civilian personnel similarly trained in explosives or munitions emergency responses.

(55) "Facility" means:

(i) Any contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste, or for managing hazardous secondary materials before reclamation. A facility may consist of several treatment, storage, or disposal operational units, for example, one or more landfills, surface impoundments, or combinations of them.

(ii) For implementing corrective action under Section R315-264-101, any contiguous property under the control of the owner or operator seeking a permit under Section 19-6-108. This definition also applies to facilities implementing corrective action under Section R315-263-31 and Rule R315-101.

(iii) Notwithstanding Subsection R315-260-10(c)(55)(ii), a remediation waste management site is not a facility that is subject to Section R315-264-101, but is subject to corrective action requirements if the site is located within such a facility.

(56) "Federal agency" means any department, agency, or other instrumentality of the federal government, any independent agency or establishment of the federal government including any government corporation, and the Government Printing Office.

(57) "Federal, state and local approvals or permits necessary to begin physical construction" means permits and approvals required under federal, state or local hazardous waste control statutes, rules, regulations or ordinances.

(58) "Final closure" means the closure of each hazardous waste management unit at the facility in accordance with any applicable closure requirements so that hazardous waste management activities under Rules R315-264 and R315-265 are no longer conducted at the facility unless subject to the provisions in Sections R315-262-16 and R315-262-17.

(59) "Food-chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

(60) "Free liquids" means liquids that readily separate from the solid portion of a waste under ambient temperature and pressure.

(61) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

(62) "Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in Rule R315-261 or whose act first causes a hazardous waste to become subject to regulation.

(63) "Ground water" means water below the land surface in a zone of saturation.

(64) "Hazard class" means:

(i) the DOT hazard class identified in 49 CFR 172; and

(ii) if the DOT hazard class is "OTHER REGULATED MATERIAL," ORM, the EPA hazardous waste characteristic exhibited by the waste and identified in Sections R315-261-20 through R315-261-24.

(65) "Hazardous secondary material" means a secondary material, for example, spent material, by-product, or sludge, which if discarded, would be identified as hazardous waste under Rule R315-261.

(66) "Hazardous secondary material generator" means any person whose act or process produces hazardous secondary materials at the generating facility. For purposes of Subsection R315-260-10(c)(66), "generating facility" means any contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator. For the purposes of Subsections R315-261-2(a)(2)(ii) and R315-261-4(a)(23), a facility that collects hazardous secondary materials from other persons is not the hazardous secondary material generator.

(67) "Hazardous waste constituent" means a constituent that caused the Board to list the hazardous waste in Sections R315-261-30 through R315-261-35, or a constituent listed in table 1 of Section R315-261-24.

(68) "Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system and a container storage area. A container alone does not constitute a unit. The unit includes containers and the land or pad upon which they are placed.

(69) "In operation" refers to a facility that is treating, storing, or disposing of hazardous waste.

(70) "Inactive portion" means that portion of a facility that is not operated after November 19, 1980. See also "active portion" and "closed portion".

(71) "Incinerator" means any enclosed device that:

(i) uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(ii) meets the definition of infrared incinerator or plasma arc incinerator.

(72) "Incompatible waste" means a hazardous waste that is unsuitable for:

(i) placement in a particular device or facility because it may cause corrosion or decay of containment materials, for example, container inner liners or tank walls;

(ii) commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases; or

(iii) see Appendix V to Rule R315-264 in Section R315-264-1105 and Appendix V to Rule R315-265 in Section R315-265-1400 for examples.

(73) "Individual generation site" means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

(74) "Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(i) cement kilns;

(ii) lime kilns;

(iii) aggregate kilns;

(iv) phosphate kilns;

(v) coke ovens;

(vi) blast furnaces;

(vii) smelting, melting and refining furnaces, including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machine, roasters, and foundry furnaces;

(viii) titanium dioxide chloride process oxidation reactors;

(ix) methane reforming furnaces;

(x) pulping liquor recovery furnaces;

(xi) combustion devices used in the recovery of sulfur values from spent sulfuric acid;

(xii) halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of 20% as-generated; and

(xiii) other devices as the Board may, after notice and comment, add to this list on the basis of one or more of the following factors:

(A) the design and use of the device primarily to accomplish recovery of material products;

(B) the use of the device to burn or reduce raw materials to make a material product;

(C) the use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;

(D) the use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product;

(E) the use of the device in common industrial practice to produce a material product; and

(F) other factors, as appropriate.

(75) "Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and that is not listed as an industrial furnace.

(76) "Inground tank" means a device meeting the definition of "tank" in Section R315-260-10 that has a portion of the tank

wall that is situated to any degree within the ground preventing visual inspection of that external surface area of the tank that is in the ground.

(77) "Injection well" means a well that fluids are injected into. See also "underground injection".

(78) "Inner liner" means a continuous layer of material placed inside a tank or container that protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

(79) "Installation inspector" means a person who, by reason of their knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

(80) "Intermediate facility" means any facility that stores hazardous secondary materials for more than 10 days, other than a hazardous secondary material generator or reclaimer of hazardous secondary material.

(81) "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

(82) "Lamp," also referred to as "universal waste lamp", is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include; fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

(83) "Land-based unit" means an area where hazardous secondary materials are placed in or on the land before recycling. This definition does not include land-based production units.

(84) "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and that is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

(85) "Landfill cell" means a discrete volume of a hazardous waste landfill that uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

(86) "Land treatment facility" means a facility or part of a facility where hazardous waste is applied onto or incorporated into the soil surface, these facilities are disposal facilities if the waste will remain after closure.

(87) "Large quantity generator" is a generator who generates any of the following amounts in a calendar month:

(i) greater than or equal to 1,000 kilograms, 2,200 lbs, of non-acute hazardous waste;

(ii) greater than one kilogram, 2.2 lbs, of acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e); or

(iii) greater than 100 kilograms, 220 lbs, of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e).

(88) "Leachate" means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

(89) "Leak detection system" means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. A leak detection system shall use operational controls, for example daily visual inspections for releases into the secondary containment system of aboveground tanks, or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

(90) "Liner" means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, that restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

(91) "Management" or "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

(92) "Manifest" is defined in Subsection 19-6-102(14) and is further defined as the shipping document EPA Form 8700-22, including, if necessary, EPA Form 8700-22A, or the electronic manifest, originated and signed in accordance with the applicable requirements of Rules R315-262 through R315-265.

(93) "Manifest tracking number" means the alphanumeric identification number that is a unique three letter suffix preceded by nine numerical digits, that is pre-printed in Item 4 of the Manifest by a registered source.

(94) "Mercury-containing equipment" means a device or part of a device, including thermostats, but excluding batteries and lamps, that contains elemental mercury integral to its function.

(95) "Military munitions" means the ammunition products and components produced or used by or for the U.S. Department of Defense or the U.S. Armed Services for national defense and security, including military munitions under the control of the Department of Defense, the U.S. Coast Guard, the U.S. Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components. However, the term does include non-nuclear components of nuclear devices, managed under DOE's nuclear weapons program after any required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.

(96) "Mining overburden returned to the mine site" means any material overlying an economic mineral deposit that is removed to gain access to that deposit and is then used for reclamation of a surface mine.

(97) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 CFR 146, containment building, corrective action management unit, unit eligible for a research, development, and demonstration permit under Section R315-270-65, or staging pile.

(98) "Monitoring" means any procedures used to systematically inspect and collect data on operational parameters of the facility or on the quality of the air, ground water, surface water, or soils.

(99) "Movement" means that hazardous waste transported to a facility in an individual vehicle.

(100) "New hazardous waste management facility" or "new facility" means a facility that began operation, or commenced construction after November 19, 1980. See also "Existing hazardous waste management facility".

(101) "New tank system" or "new tank component" means a tank system or component that will be used for the storage or treatment of hazardous waste and commenced installation after July 14, 1986; except, however, for purposes of Subsections R315-264-193(g)(2) and R315-265-193(g)(2), a new tank system is one that commences construction after July 14, 1986, or December 16, 1988 for purposes of implementing the non-HSWA requirements of the tank regulations as promulgated by EPA on July 14, 1986, 51 FR 25470, as they have been incorporated into the corresponding rules of Title R315; except, however, for purposes of Subsection R315-265-193(g)(2) and Subsection R315-264-193(g)(2), a new tank system is one that commences construction after July 14, 1986. A non-HSWA new tank system or non-HSWA new tank component is one that does not implement any of the requirements of the federal Hazardous and Solid Waste Amendments of 1984 (HSWA) as identified in Table 1 of 40 CFR 271.1. See also "existing tank system."

(102) "No free liquids, as used in Subsections R315-261-4(a)(26) and R315-261-4(b)(18)", means that solvent-contaminated wipes may not contain free liquids as determined by Method 9095B, Paint Filter Liquids Test, included in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, and that there is no free liquid in the container holding the wipes. No free liquids may also be determined using another standard or test method as defined by the director.

(103) "Non-acute hazardous waste" means any hazardous wastes that are not acute hazardous waste, as defined in Section R315-260-10.

(104) "On ground tank" means a device meeting the definition of "tank" in Section R315-260-10 and that is situated so that the bottom of the tank is at the level of the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

(105) "On-site" means the same or geographically contiguous property that may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right-of-way. Non-contiguous properties owned by a person but connected by a right-of-way that the person controls and the public does not have access, is also considered on-site property.

(106) "Open burning" means the combustion of any material without the following characteristics:

(i) control of combustion air to maintain adequate temperature for efficient combustion;

(ii) containment of the combustion-reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(iii) control of emission of the gaseous combustion products. See also "incineration" and "thermal treatment".

(107) "Operator" means the person responsible for the overall operation of a facility.

(108) "Owner" means the person who owns a facility or part of a facility.

(109) "Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of Rules R315-264 and R315-265 at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank, including its associated piping and underlying containment systems, landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the facility continue to operate.

(110) "Polychlorinated biphenyl, PCB" and "PCBs" means any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances that contain the substance. PCB and PCBs as contained in PCB items are defined in Section R315-260-10. For any purposes under Rules R315-260 through R315-266, R315-268, R315-270, R315-273, R315-15, and R315-101, inadvertently generated non-Aroclor PCBs are defined as the total PCBs calculated following division of the quantity of monochlorinated biphenyls by 50 and dichlorinated biphenyls by 5.

(111) "PCB Item" means any PCB Article, PCB Article Container, PCB Container, PCB Equipment, or anything that deliberately or unintentionally contains or has as a part of it any PCB or PCBs.

(112) "Permit" means the plan approval as required by Subsection 19-6-108(3)(a), or equivalent control document issued by the director to implement the requirements of the Utah Solid and Hazardous Waste Act;

(113) "Permittee" is defined in Subsection 19-6-102(18) and includes any person who has received an approval of a hazardous waste operation plan under Section 19-6-108 and Rule R315-262 or a federal RCRA permit for a treatment, storage, or disposal facility.

(114) "Person" means an individual, trust, firm, joint stock company, federal agency, corporation, including a government corporation, partnership, association, state, municipality, commission, political subdivision of a state, or any interstate body.

(115) "Personnel" or "facility personnel" means any person who works at, or oversees the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of Rule R315-264 or R315-265.

(116) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(i) is a new animal drug under FFDCA Section 201(w);

(ii) is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new

animal drug; or

(iii) is an animal feed under FFDCA Section 201(x) that bears or contains any substances described by Subsection R315-260-10(c)(116)(i) or (ii).

(117) "Pile" means any non-containerized accumulation of solid, non-flowing hazardous waste that is used for treatment or storage and that is not a containment building.

(118) "Plasma arc incinerator" means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and that is not listed as an industrial furnace.

(119) "POHCs" means principle organic hazardous constituents.

(120) "Point source" means any discernible, confined, and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(121) "Precipitation run-off" means water generated from naturally occurring storm events. If the precipitation run-off has been in contact with a waste defined in Sections R315-261-20 through R315-261-24, it qualifies as "precipitation run-off" if the water does not exhibit any of the characteristics identified in Sections R315-261-20 through R315-261-24. If the precipitation run-off has been in contact with a waste listed in Sections R315-261-30 through R315-261-35, then it qualifies as "precipitation run-off" if the water has been excluded under Section R315-260-22. Water containing any leachate does not qualify as "precipitation run-off".

(122) "Publicly owned treatment works" or "POTW" means any device or system used in the treatment, including recycling and reclamation, of municipal sewage or industrial wastes of a liquid nature that is owned by the state or a political subdivision within the state. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

(123) "Qualified Ground Water Scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in ground water hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university courses that enable that individual to make sound professional judgments regarding ground water monitoring and contaminant fate and transport.

(124) "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. Section 6901 et seq.

(125) "Recognized trader" means a person domiciled in the United States, by site of business, who acts to arrange and facilitate transboundary movements of wastes destined for recovery or disposal operations, either by purchasing from and subsequently selling to United States and foreign facilities, or by acting under arrangements with a United States waste facility to arrange for the export or import of the wastes.

(126) "Remanufacturing" means processing a higher-value hazardous secondary material to manufacture a product that serves a similar functional purpose as the original commercial-grade material. For this definition, a hazardous secondary material is considered higher-value if it was generated from the use of a commercial-grade material in a manufacturing process and can be remanufactured into a similar commercial-grade material.

(127) "Remediation waste" means any solid and hazardous wastes, and any media, including ground water, surface water, soils, and sediments, and debris, that are managed for implementing cleanup.

(128) "Remediation waste management site" means a facility where an owner or operator is or will be treating, storing or disposing of hazardous remediation wastes. A remediation waste management site is not a facility that is subject to corrective action under Section R315-264-101, but is subject to corrective action requirements if the site is located in such a facility.

(129)(i) "Replacement unit" means a landfill, surface impoundment, or waste pile unit:

(A) from which the waste or a substantial amount of the waste is removed; and

(B) that is subsequently reused to treat, store, or dispose of hazardous waste.

(ii) "Replacement unit" does not apply to a unit from which waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with a closure plan approved by the director or a corrective action approved by the director.

(130) "Representative sample" means a sample of a universe or whole, for example, waste pile, lagoon, ground water, that can be expected to exhibit the average properties of the universe or whole.

(131) "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

(132) "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(133) "Saturated zone" or "zone of saturation" means that part of the earth's crust where each void is filled with water.

(134) "Sludge" means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

(135) "Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 Btu per lb of sludge treated on a wet-weight basis.

(136) "Small Quantity Generator" is a generator who generates the following amounts in a calendar month:

(i) greater than 100 kilograms, 220 lbs, but less than 1,000 kilograms, 2,200 lbs, of non-acute hazardous waste; and

(ii) less than or equal to one kilogram, 2.2 lbs, of acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e); and

(iii) less than or equal to 100 kilograms, 220 lbs, of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e).

(137) "Solid Waste Management Unit" means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. These units include any area at a facility at which solid wastes have been routinely and systematically released.

(138) "Solvent-contaminated wipe" means:

(i) a wipe that, after use or after cleaning up a spill, meets one or more of the following criteria:

(A) Contains one or more of the F001 through F005 solvents listed in Section R315-261-31 or the corresponding P- or U-listed solvents found in Section R315-261-33.

(B) Exhibits a hazardous characteristic found in Sections R315-261-20 through R315-261-24 if that characteristic results from a solvent listed in Rule R315-261.

(C) Exhibits only the hazardous waste characteristic of ignitability found in Section R315-261-21 due to the presence of one or more solvents that are not listed in Rule R315-261.

(ii) Solvent-contaminated wipes that contain listed hazardous waste other than solvents, or exhibit the characteristic of toxicity, corrosivity, or reactivity due to contaminants other than solvents, are not eligible for the exclusions at Subsections R315-261-4(a)(26) and R315-261-4(b)(18).

(139) "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both.

(140) "Sorb" means to either adsorb or absorb, or both.

(141) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing.

(142) "Spill" means the accidental discharging, spilling, leaking, pumping, pouring, emitting, emptying, releasing, or dumping of hazardous wastes or materials that, if spilled, become hazardous wastes, into or on any land or water.

(143) "Staging pile" means an accumulation of solid, non-flowing remediation waste, as defined in Section R315-260-10, that is not a containment building and that is used only during remedial operations for temporary storage at a facility. Staging piles shall be designated by the director according to the requirements of Section R315-264-554.

(144) "State" means the state of Utah.

(145) "Storage" is defined in Subsection 19-6-102(20) and includes the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

(146) "Sump" means any pit or reservoir that meets the definition of tank and those troughs or trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile rules, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

(147) "Surface impoundment" or "impoundment" means a facility or part of a facility that is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials, although it may be lined with man-made materials, that is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and that is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

(148) "Tank" means a stationary device, designed to contain an accumulation of hazardous waste that is constructed primarily of non-earthen materials, for example, wood, concrete, steel, plastic, that provide structural support.

(149) "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

(150) "TEQ" means toxicity equivalence, the international method of relating the toxicity of various dioxin or furan congeners to the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin.

(151) "Thermal treatment" means the treatment of hazardous waste in a device that uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge. See also "incinerator" and "open burning".

(152) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of Subsection R315-273-13(c)(2) or R315-273-33(c)(2).

(153) "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste that is directly connected to an industrial production process and that is constructed and operated in a manner that prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

(154) "Transfer facility" means any transportation-related facility, including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste or hazardous secondary materials are held during the normal course of transportation.

(155) "Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body, for example, trailer or railroad freight car, is a separate transport vehicle.

(156) "Transportation" is defined in Subsection 19-6-102(23) and includes the movement of hazardous waste by air, rail, highway, or water.

(157) "Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway, or water.

(158)(i) "Treatability study" means a study in which a hazardous waste is subjected to a treatment process to determine:

(A) whether the waste is amenable to the treatment process;

(B) what pretreatment, if any, is required;

(C) the optimal process conditions needed to achieve the desired treatment;

(D) the efficiency of a treatment process for a specific waste or wastes; or

(E) the characteristics and volumes of residuals from a particular treatment process.

(ii) Also included in this definition for the Subsections R315-261-4(e) and R315-261-4(f) exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies.

(iii) A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

(159) "Treatment" is defined in Subsection 19-6-102(22) and includes any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize the waste, or so as to recover energy or material resources from the waste, or so as to make the waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

(160) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized.

(161) "Underground injection" means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. See also "injection well".

(162) "Underground tank" means a device meeting the definition of "tank" in Section R315-260-10 whose entire surface area is totally below the surface of and covered by the ground.

(163) "Unfit-for use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

(164) "United States" means the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(165) "Universal waste" means any of the following hazardous wastes that are managed under the universal waste requirements of Rule R315-273:

(i) batteries as described in Section R315-273-2;

(ii) pesticides as described in Section R315-273-3;

(iii) mercury-containing equipment as described in Section R315-273-4;

(iv) lamps as described in Section R315-273-5;

(v) aerosol cans as described in Section R315-273-6; and

(vi) antifreeze as described in Section R315-273-7.

(166)(i) "Universal waste handler" means:

(A) a generator of universal waste; or

(B) the owner or operator of a facility, including any contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(ii) "Universal waste handler" does not mean:

(A) a person who treats, except under Subsection R315-273-13(a) or R315-273-13(c), or R315-273-33(a) or R315-273-33(c), disposes of, or recycles, except under Subsection R315-273-13(f) or R315-273-33(f), universal waste; or

(B) a person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(167) "Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

(168) "Unsaturated zone" or "zone of aeration" means the zone between the land surface and the water table.

(169) "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

(170) Used oil is defined in Subsection 19-6-703(19). Used oil includes engine oil, transmission fluid, compressor oils, metalworking oils, hydraulic oil, brake fluid, oils used as buoyants, lubricating greases, electrical insulating, and dialectic oils.

(171) "User of the electronic manifest system" means a hazardous waste generator, a hazardous waste transporter, an owner or operator of a hazardous waste treatment, storage, recycling, or disposal facility, or any other person that:

(i) is required to use a manifest to comply with:

(A) any federal or state requirement to track the shipment, transportation, and receipt of hazardous waste or other waste material that is shipped from the site of generation to an off-site designated facility for treatment, storage, recycling, or disposal; or

(B) any federal or state requirement to track the shipment, transportation, and receipt of rejected wastes or regulated container residues that are shipped from a designated facility to an alternative facility, or returned to the generator; and

(ii) elects to use the system to get, complete and transmit an electronic manifest format supplied by the EPA electronic manifest system; or

(iii) elects to use the paper manifest form and submits to the system for data processing purposes a paper copy of the manifest, or data from a paper copy, in accordance with Subsection R315-264-71(a)(2)(v) or R315-265-71(a)(2)(v). These paper copies are submitted for data exchange purposes only and are not the official copies of record for legal purposes.

(172) "Very small quantity generator" is a generator who generates less than or equal to the following amounts in a calendar month:

(i) one hundred kilograms, 220 lbs, of non-acute hazardous waste;

(ii) one kilogram, 2.2 lbs, of acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e); and

(iii) one hundred kilograms, 220 lbs, of any residue or contaminated soil, water, or other debris resulting from the cleanup of

a spill, into or on any land or water, of any acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e).

(173) "Vessel" includes any description of watercraft, used or capable of being used as a means of transportation on the water.

(174) "Waste management area" means the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit. The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit. If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

(175) "Wastewater treatment unit" means a device that:

(i) is part of a wastewater treatment facility that is subject to regulation under either Section 402 or Subsection 307(b) of the Clean Water Act;

(ii) receives and treats or stores an influent wastewater that is a hazardous waste as defined in Section R315-261-3, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in Section R315-261-3, or treats or stores a wastewater treatment sludge that is a hazardous waste as defined in Section R315-261-3; and

(iii) meets the definition of tank or tank system in Section R315-260-10.

(176) "Water, bulk shipment" means the bulk transportation of hazardous waste that is loaded or carried on board a vessel without containers or labels.

(177) "Well" means any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

(178) "Well injection": See "underground injection"

(179) "Wipe" means a woven or non-woven shop towel, rag, pad, or swab made of wood pulp, fabric, cotton, polyester blends, or other material.

(180) "Zone of engineering control" means an area under the control of the owner or operator that, upon detection of a hazardous waste release, can be readily cleaned up before the release of hazardous waste or hazardous constituents to ground water or surface water.

R315-260-11. Incorporation by Reference.

(a) For purposes of Rules R315-260 through R315-266, R315-268, R315-270, and R315-273, Rule R315-15 and Rule R315-101, the references of 40 CFR 260.11, 2020 ed, is incorporated by reference.

R315-260-12. Definitions for Rule R315-101.

(a) For purposes of Rule R315-101 regarding cleanup action and Risk-Based Closure Standards, the following terms are defined:

(1) "The concentration term, C" is calculated as the 95% upper confidence limit, UCL, on the arithmetic average for normally distributed data, or as the 95% upper confidence limit on the arithmetic average for lognormally distributed data. For normally distributed data, $C = \text{Mean} + t \times \text{Standard Deviation}/n^{1/2}$, where n is the number of observations, and t is Student's t distribution (at the 95% one-sided confidence level and n-1 degrees of freedom), tables of which are printed in most introductory statistics textbooks. For lognormally distributed data, C = exp (Mean of lognormal-transformed data + 0.5 x Variance of lognormal-transformed data + Standard Deviation of lognormal-transformed data x $H/(n - 1)^{1/2}$), where n is the number of observations, and H is Land's H statistic (at the 95% one-sided confidence level), tables of which are printed in advanced statistics books. For data which are not normally nor lognormally distributed, appropriate statistics, such as nonparametric confidence limits, shall be applied.

(2) "Area of contamination" means a hazardous waste management unit or an area where a release has occurred. The boundary is defined as the furthest extent where contamination from a defined source has migrated in any medium at the time the release is first identified.

(3) "Contaminate" means to render a medium polluted through the introduction of hazardous waste or hazardous constituents as identified in R315-261, Appendix VIII.

(4) "Hazard index" means the sum of more than one hazard quotient for multiple substances, multiple exposure pathways, or both. The Hazard Index is calculated separately for chronic, subchronic, and shorter duration exposures.

(5) "Hazard quotient" means the ratio of a single substance exposure level over a specified time period, e.g. subchronic, to a reference dose for that substance derived from a similar exposure period.

(6) "Risk-based closure" means closure of a site where hazardous waste was managed or any medium has been contaminated by a release of hazardous waste or hazardous constituents, and where hazardous waste or hazardous constituents remain at the site in any medium at concentrations determined, under Rule R315-101, to cause minimal levels of risk to human health and the environment so as to require no further action or monitoring on the part of the responsible party nor any notice of hazardous waste management on the deed to the property.

(7) "Reasonable maximum exposure (RME)" means the highest exposure that is reasonably expected to occur at a site. The goal of RME is to combine upper-bound and mid-range exposure factors so that the result represents an exposure scenario that is both protective and reasonable; not the worst possible case.

(8) "Release" means spill or discharge of hazardous waste, hazardous constituents, or material that becomes hazardous waste when released to the environment.

(9) "Responsible party" means the owner or operator of a facility, or any other person responsible for the release of hazardous waste or hazardous constituents.

(10) "Site" means the area of contamination and any other area that could be impacted by the released contaminants, or could influence the migration of those contaminants, regardless of whether the site is owned by the responsible party.

R315-260-19. Variances Authorized.

(a) Variances shall be granted by the Board only to the extent allowed under State and Federal law.

(b) The Board may consider a variance request in accordance with the standard established in section 19-6-111.

(c) The Board may, at its own instance, review any variance granted during the term for which a variance was granted.

(d) A person applying for a variance shall submit the application, in writing, to the Director. The application shall provide the following:

(1) Citation of the statutory, regulatory, or permit requirement from which the variance is sought;

(2) For variances for which the Board promulgates or has promulgated specific rules, information meeting the requirements of those rules;

(3) Information demonstrating that application of or compliance with the requirement would cause undue or unreasonable hardship on the person applying for the variance;

(4) Proposed alternative requirements, if any;

(5) Information demonstrating that the variance will achieve the purpose and intent of the statutory, regulatory, or permit provision from which the variance is sought;

(6) Information demonstrating that any alternative requirement or requirements will adequately protect human health and the environment; and

(7) If no alternative requirement is proposed, information demonstrating that if the variance is granted, human health and the environment will be adequately protected.

(e) A person applying for a variance shall provide such additional information as the Board or the Director requires.

(f) Nothing in Subsection R315-260-19(d) or (e) limits the authority of the Board to grant variances in accordance with the standard established in Section 19-6-111. A person applying for a variance under Section R315-263-32 shall provide such information described in Subsection R315-260-19(d) as the Director determines.

R315-260-20. Petition to Amend Rules.

(a) It is the intent of the Board to insure the compatibility and equivalency of Rules R315-260 through 266, 268, 270, 273 and 124 with the regulations promulgated by EPA under the Resource Conservation and Recovery Act of 1976.

(b) Any person may petition the Board to modify or revoke any provision in Rules R315-260 through 266, 268, 270, 273, Rule R315-15 Rule R315-101, R315-102, and R315-124. A petition shall be considered under the procedures outlined in Section 63G-3-601 and Rule R15-2.

R315-260-21. Petitions for Equivalent Testing or Analytical Methods.

(a) Any person seeking to add a testing or analytical method to Rules R315-261, R315-264, or R315-265 may petition for a regulatory amendment under Section R315-260-21 and Section R315-260-20. To be successful, the person shall demonstrate to the satisfaction of the Board that the proposed method is equal to or superior to the corresponding method prescribed in Rules R315-261, R315-264, or R315-265, in terms of its sensitivity, accuracy, and precision, i.e., reproducibility.

(b) Each petition shall include, in addition to the information required by Section R315-260-20:

(1) A full description of the proposed method, including all procedural steps and equipment used in the method;

(2) A description of the types of wastes or waste matrices for which the proposed method may be used;

(3) Comparative results obtained from using the proposed method with those obtained from using the relevant or corresponding methods prescribed in Rules R315-261, R315-264, or R315-265;

(4) An assessment of any factors which may interfere with, or limit the use of, the proposed method; and

(5) A description of the quality control procedures necessary to ensure the sensitivity, accuracy and precision of the proposed method.

(c) After receiving a petition for an equivalent method, the Board may request any additional information on the proposed method which the Board may reasonably require to evaluate the method.

(d) If the Board amends the rules to permit use of a new testing method, the method shall be incorporated by reference in Section R315-260-11.

(e) Petitioner may, alternatively, proceed under the provisions of 40 CFR 260.21 to have an alternative analytical method approved by EPA. In the event approval is granted, the petitioner shall so notify the Board and the Director and the decision of EPA shall be binding upon the Board and the Director.

R315-260-22. Petitions to Amend Rule to Exclude a Waste Produced at a Particular Facility.

(a) Any person seeking to exclude a waste at a particular generating facility from the lists in Sections R315-261-30 through 35 may petition for a regulatory amendment under Section R315-260-22 and Section R315-260-20. To be successful:

(1) The petitioner shall demonstrate to the satisfaction of the Board that the waste produced by a particular generating facility does not meet any of the criteria under which the waste was listed as a hazardous or an acutely hazardous waste; and

(2) Based on a complete application, the Board shall determine, where it has a reasonable basis to believe that factors, including additional constituents, other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of Sections 261-20 through 24.

(b) The procedures in Sections R315-260-22 and R315-260-20 may also be used to petition the Board for a regulatory

amendment to exclude from Subsections R315-261-3(a)(2)(ii) or (c), a waste which is described in Subsections R315-261-3(a)(2)(ii) or (c) and is either a waste listed Sections R315-261-30 through 35 or is derived from a waste listed in Sections R315-261-30 through 35. This exclusion may only be issued for a particular generating, storage, treatment, or disposal facility. The petitioner shall make the same demonstration as required by Subsection R315-260-22(a). Where the waste is a mixture of solid waste and one or more listed hazardous wastes or is derived from one or more hazardous wastes, his demonstration shall be made with respect to the waste mixture as a whole; analyses shall be conducted for not only those constituents for which the listed waste contained in the mixture was listed as hazardous, but also for factors, including additional constituents, that could cause the waste mixture to be a hazardous waste. A waste which is so excluded may still be a hazardous waste by operation of Sections R315-261-20 through 24.

(c) If the waste is listed with codes "I", "C", "R", or "E", in Sections R315-261-30 through 35,

(1) The petitioner shall show that the waste does not exhibit the relevant characteristic for which the waste was listed as defined in Sections R315-261-21 through 24 using any applicable methods prescribed therein. The petitioner also shall show that the waste does not exhibit any of the other characteristics defined in Sections R315-261-21 through 24 using any applicable methods prescribed therein;

(2) Based on a complete application, the Board shall determine, where it has a reasonable basis to believe that factors, including additional constituents, other than those for which the waste was listed could cause the waste to be hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A waste which is so excluded, however, still may be a hazardous waste by operation of Sections R315-261-20 through 24.

(d) If the waste is listed with code "T" in Sections R315-2611-30 through 35,

(1) The petitioner shall demonstrate that the waste:

(i) Does not contain the constituent or constituents, as defined in appendix VII of Rule R315-261, that caused the waste to be listed; or

(ii) Although containing one or more of the hazardous constituents, as defined in appendix VII of Rule R315-261, that caused the waste to be listed, does not meet the criterion of Subsection R315-261-11(a)(3) when considering the factors in Subsections R315-261-11(a)(3)(i) through (xi) under which the waste was listed as hazardous; and

(2) Based on a complete application, the Board shall determine, where it has a reasonable basis to believe that factors, including additional constituents, other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

(3) The petitioner shall demonstrate that the waste does not exhibit any of the characteristics defined in Sections R315-261.21 Through 24 using any applicable methods prescribed therein;

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of Sections R315-261-20 through 24.

(e) If the waste is listed with the code "H" in Sections R315-261-30 through 35,

(1) The petitioner shall demonstrate that the waste does not meet the criterion of Subsection R315-261-11(a)(2); and

(2) Based on a complete application, the Board shall determine, where it has a reasonable basis to believe that additional factors, including additional constituents, other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste; and

(3) The petitioner shall demonstrate that the waste does not exhibit any of the characteristics defined in Sections R315-261-21 through 24 using any applicable methods prescribed therein;

(4) A waste which is so excluded, however, still may be a hazardous waste by operation of Sections R315-261-20 through 24.

(f) Reserved.

(g) Reserved.

(h) Demonstration samples shall consist of enough representative samples, but in no case less than four samples, taken over a period of time sufficient to represent the variability or the uniformity of the waste.

(i) Each petition shall include, in addition to the information required by subsection R315-260-20(b):

(1) The name and address of the laboratory facility performing the sampling or tests of the waste;

(2) The names and qualifications of the persons sampling and testing the waste;

(3) The dates of sampling and testing;

(4) The location of the generating facility;

(5) A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations, or feed materials can or might produce a waste that is not covered by the demonstration;

(6) A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration;

(7) Pertinent data on and discussion of the factors delineated in the respective criterion for listing a hazardous waste, where the demonstration is based on the factors in Subsection R315-261-11(a)(3);

(8) A description of the methodologies and equipment used to obtain the representative samples;

(9) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization and preservation of the samples;

(10) A description of the tests performed, including results;

(11) The names and model numbers of the instruments used in performing the tests; and

(12) The following statement signed by the generator of the waste or his authorized representative:

(i) I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(j) After receiving a petition for an exclusion, the Board may request any additional information which the Board may reasonably require to evaluate the petition.

(k) An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not apply to waste from any other facility.

(l) The Board may exclude only part of the waste for which the demonstration is submitted where it has reason to believe that variability of the waste justifies a partial exclusion.

(m) Petitioner may, alternatively, proceed under the provisions of 40 CFR 260.22 to have a particular waste delisted by EPA. In the event delisting is granted, the petitioner shall so notify the Board and the Director and the decision of EPA will be binding upon the Board and the Director unless, within 30 days after such notification, the Board specifically overrules the decision of EPA. In such event, the petitioner may petition the Board directly under Section R315-260-22 for the relief sought.

R315-260-23. Petitions to Amend Rule R315-273 to Include Additional Hazardous Wastes.

(a) Any person seeking to add a hazardous waste or a category of hazardous waste to the universal waste regulations of Rule R315-273 may petition for a regulatory amendment under Section R315-260-23 Section R315-260-20, and Sections R315-273-80 and 81.

(b) To be successful, the petitioner shall demonstrate to the satisfaction of the Board that regulation under the universal waste regulations of Rule R315-273: Is appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition shall include the information required by Subsection R315-260-20(b). The petition should also address as many of the factors listed in Section R315-273-81 as are appropriate for the waste or category of waste addressed in the petition.

(c) The Board shall grant or deny a petition using the factors listed in Section R315-273-81. The decision shall be based on the weight of evidence showing that regulation under Rule R315-273 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

(d) The Board may request additional information needed to evaluate the merits of the petition.

R315-260-30. Non-Waste Determinations and Exclusion from Classification as a Solid Waste.

In accordance with the standards and criteria in Sections R315-260-31 and 34 and the procedures in Section R315-260-33, the Director may determine on a case-by-case basis that the following recycled materials are not solid wastes:

(a) Materials that are accumulated speculatively without sufficient amounts being recycled, as defined in Subsection R315-261-1(c)(8);

(b) Materials that are reclaimed and then reused within the original production process in which they were generated;

(c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered;

(d) Hazardous secondary materials that are reclaimed in a continuous industrial process; and

(e) Hazardous secondary materials that are indistinguishable in all relevant aspects from a product or intermediate.

R315-260-31. Standards and Criteria for Exclusion from Classification as a Solid Waste.

(a) The Director may grant requests for exclusion from classifying as a solid waste those materials that are accumulated speculatively without sufficient amounts being recycled if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. If exclusion is granted, it is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. The Director's decision will be based on the following criteria:

(1) The manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur, for example, because of past practice, market factors, the nature of the material, or contractual arrangements for recycling;

(2) The reason that the applicant has accumulated the material for one or more years without recycling 75 percent of the volume accumulated at the beginning of the year;

(3) The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

(4) The extent to which the material is handled to minimize loss; and

(5) Other relevant factors.

(b) The Director may grant requests for exclusion from classifying as a solid waste those materials that are reclaimed and then reused as feedstock within the original production process in which the materials were generated if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:

(1) How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;

(2) The extent to which the material is handled before reclamation to minimize loss;

(3) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

(4) The location of the reclamation operation in relation to the production process;

(5) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

(6) Whether the person who generates the material also reclaims it; and

(7) Other relevant factors.

(c) The Director may grant requests for exclusion from classifying as a solid waste those hazardous secondary materials that have been partially reclaimed, but must be reclaimed further before recovery is completed, if the partial reclamation has produced a commodity-

like material. A determination that a partially-reclaimed material for which the change in classification is sought is commodity-like will be based on whether the hazardous secondary material is legitimately recycled as specified in Section R315-260-43 and on whether all of the following decision criteria are satisfied:

(1) Whether the degree of partial reclamation the material has undergone is substantial as demonstrated by using a partial reclamation process other than the process that generated the hazardous waste;

(2) Whether the partially reclaimed material has sufficient economic value that it will be purchased for further reclamation;

(3) Whether the partially-reclaimed material is a viable substitute for a product or intermediate produced from virgin or raw materials which is used in subsequent production steps;

(4) Whether there is a market for the partially-reclaimed material as demonstrated by known customer(s) who are further reclaiming the material, e.g., records of sales and/or contracts and evidence of subsequent use, such as bills of lading; and

(5) Whether the partially-reclaimed material is handled to minimize loss.

R315-260-32. Reclassification as a Boiler.

In accordance with the standards and criteria in the definition of a boiler found in Section R315-260-10, and the procedures in Section R315-260-33, the Board may determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of boiler contained in Subsection R315-260-10, after considering the following criteria:

(a) The extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(b) The extent to which the combustion chamber and energy recovery equipment are of integral design; and

(c) The efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(d) The extent to which exported energy is utilized; and

(e) The extent to which the device is in common and customary use as a "boiler" functioning primarily to produce steam, heated fluids, or heated gases; and

(f) Other factors, as appropriate.

R315-260-33. Procedures for Exclusion from Classification as a Solid Waste, for Reclassification as a Boiler, or for Non-waste Determinations.

The Director shall use the following procedures in evaluating applications for exclusion from classification as a solid waste, applications to classify particular enclosed controlled flame combustion devices as boilers, or applications for non-waste determinations.

(a) The applicant shall apply to the Director for the exclusion, reclassification, or non-waste determination. The application shall address the relevant criteria contained in Sections R315-260-31, 32, or 34, as applicable.

(b) The Director shall evaluate the application and issue a draft notice tentatively granting or denying the application. Notification of this tentative decision shall be provided by newspaper advertisement or radio broadcast in the locality where the facility requesting the exclusion, reclassification, or non-waste determination is located. The Director shall accept comment on the tentative decision for 30 days, and may also hold a public hearing upon request or at the Director's discretion. The Director shall issue a final decision after receipt of comments and after the hearing, if any.

(c) In the event of a change in circumstances that affect how a hazardous secondary material meets the relevant criteria contained in Sections R315-260-31 or 34 upon which a exclusion determination or non-waste determination has been based, the applicant shall send a description of the change in circumstances to the Director. The Director may issue a determination that the hazardous secondary material continues to meet the relevant criteria of the exclusion determination or non-waste determination or may require the facility to re-apply for the exclusion determination or non-waste determination.

(d) Exclusion determinations and non-waste determinations shall be effective for a fixed term not to exceed ten years. No later than six months prior to the end of this term, facilities shall re-apply for a exclusion determination or non-waste determination. If a facility re-applies for a exclusion determination or non-waste determination within six months, the facility may continue to operate under an expired exclusion determination or non-waste determination until receiving a decision on their re-application from the Director.

(e) Facilities receiving a exclusion determination or non-waste determination shall provide notification as required by Section R315-260-42.

R315-260-34. Standards and Criteria for Non-Waste Determinations.

(a) An applicant may apply to the Director for a formal determination that a hazardous secondary material is not discarded and therefore not a solid waste. The determinations will be based on the criteria contained in Subsections R315-260-34(b) or (c), as applicable. If an application is denied, the hazardous secondary material might still be eligible for a solid waste variance or exclusion.

(b) The Director may grant a non-waste determination for hazardous secondary material which is reclaimed in a continuous industrial process if the applicant demonstrates that the hazardous secondary material is a part of the production process and is not discarded. The determination will be based on whether the hazardous secondary material is legitimately recycled as specified in Section R315-260-43 and on the following criteria:

(1) The extent that the management of the hazardous secondary material is part of the continuous primary production process and is not waste treatment;

(2) Whether the capacity of the production process would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned, for example, based on past practices, market factors, the nature of the

hazardous secondary material, or any contractual arrangements;

(3) Whether the hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and

(4) Other relevant factors that demonstrate the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not have to meet, the conditions of an exclusion under Sections R315-261-2 or 4.

(c) The Director may grant a non-waste determination for hazardous secondary material which is indistinguishable in all relevant aspects from a product or intermediate if the applicant demonstrates that the hazardous secondary material is comparable to a product or intermediate and is not discarded. The determination will be based on whether the hazardous secondary material is legitimately recycled as specified in Section R315-260-43 and on the following criteria:

(1) Whether market participants treat the hazardous secondary material as a product or intermediate rather than a waste, for example, based on the current positive value of the hazardous secondary material, stability of demand, or any contractual arrangements;

(2) Whether the chemical and physical identity of the hazardous secondary material is comparable to commercial products or intermediates;

(3) Whether the capacity of the market would use the hazardous secondary material in a reasonable time frame and ensure that the hazardous secondary material will not be abandoned, for example, based on past practices, market factors, the nature of the hazardous secondary material, or any contractual arrangements;

(4) Whether the hazardous constituents in the hazardous secondary material are reclaimed rather than released to the air, water or land at significantly higher levels from either a statistical or from a health and environmental risk perspective than would otherwise be released by the production process; and

(5) Other relevant factors that demonstrate the hazardous secondary material is not discarded, including why the hazardous secondary material cannot meet, or should not have to meet, the conditions of an exclusion under Sections R315-261-2 or 4.

R315-260-40. Additional Regulation of Certain Hazardous Waste Recycling Activities on a Case-by-Case Basis.

(a) The Director may decide on a case-by-case basis that persons accumulating or storing the recyclable materials described in Subsection R315-261-6(a)(2)(iii) should be regulated under Subsection R315-261-6(b) and (c). The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the Director shall consider the following factors:

(1) The types of materials accumulated or stored and the amounts accumulated or stored;

(2) The method of accumulation or storage;

(3) The length of time the materials have been accumulated or stored before being reclaimed;

(4) Whether any contaminants are being released into the environment, or are likely to be so released; and

(5) Other relevant factors.

(2) The procedures for this decision are set forth in R315-260-41.

R315-260-41. Procedures for Case-by-Case Regulation of Hazardous Waste Recycling Activities.

The Director shall use the following procedures when determining whether to regulate hazardous waste recycling activities described in Subsection R315-261-6(a)(2)(iii) under the provisions of Subsection R315-261-6(b) and (c), rather than under the provisions of Section R315-266-70.

(a) If a generator is accumulating the waste, the Director shall issue a notice setting forth the factual basis for the decision and stating that the person shall comply with the applicable requirements of Sections R315-262-10 through 12, R315-262-30 through 34, R315-262-40 through 44, and R315-262-50 through 58. The notice shall become final within 30 days, unless a request for agency action is made under the requirements of the Administrative Procedures Act.

(b) If the person is accumulating the recyclable material as a storage facility, the notice will state that the person shall obtain a permit in accordance with all applicable provisions of Rule R315-270 and 124. The owner or operator of the facility shall apply for a permit within no less than 60 days and no more than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the Director's decision, he may do so in in accordance with the Administrative Procedures Act.

R315-260-42. Notification Requirement for Hazardous Secondary Materials.

(a) Facilities managing hazardous secondary materials under Section R315-260-30, or Subsections R315-261-4(a)(23), (24), (25), or (27) shall send a notification prior to operating under the regulatory provision and by March 1 of each even numbered year thereafter to the Director using EPA Form 8700-12 that includes the following information:

(1) The name, address, and EPA ID number, if applicable, of the facility;

(2) The name and telephone number of a contact person;

(3) The NAICS code of the facility;

(4) The regulation under which the hazardous secondary materials shall be managed;

(5) For reclaimers and intermediate facilities managing hazardous secondary materials in accordance with Subsections R315-261-4(a)(24) or (25), whether the reclaimer or intermediate facility has financial assurance (not applicable for persons managing hazardous secondary materials generated and reclaimed under the control of the generator);

(6) When the facility began or expects to begin managing the hazardous secondary materials in accordance with the regulation;

(7) A list of hazardous secondary materials that shall be managed according to the regulation, reported as the EPA hazardous

waste numbers that would apply if the hazardous secondary materials were managed as hazardous wastes;

(8) For each hazardous secondary material, whether the hazardous secondary material, or any portion thereof, will be managed in a land-based unit;

(9) The quantity of each hazardous secondary material to be managed annually; and

(10) The certification, included in EPA Form 8700-12, signed and dated by an authorized representative of the facility.

(b) If a facility managing hazardous secondary materials has submitted a notification, but then subsequently stops managing hazardous secondary materials in accordance with the regulation(s) listed above, the facility shall notify the Director within thirty days using EPA Form 8700-12. For purposes of Section R315-260-42, a facility has stopped managing hazardous secondary materials if the facility no longer generates, manages and/or reclaims hazardous secondary materials under the regulation(s) above and does not expect to manage any amount of hazardous secondary materials for at least 1 year.

R315-260-43. Legitimate Recycling of Hazardous Secondary Materials.

(a) Recycling of hazardous secondary materials for the purpose of the exclusions or exemptions from the hazardous waste regulations shall be legitimate. Hazardous secondary material that is not legitimately recycled is discarded material and is a solid waste. In determining if their recycling is legitimate, persons shall address all the requirements of Subsections R315-260-43(a)(1) through (3) and shall consider the requirements of Subsection R315-260-43(b).

(1) Legitimate recycling shall involve a hazardous secondary material that provides a useful contribution to the recycling process or to a product or intermediate of the recycling process. The hazardous secondary material provides a useful contribution if it:

(i) Contributes valuable ingredients to a product or intermediate; or

(ii) Replaces a catalyst or carrier in the recycling process; or

(iii) Is the source of a valuable constituent recovered in the recycling process; or

(iv) Is recovered or regenerated by the recycling process; or

(v) Is used as an effective substitute for a commercial product.

(2) The recycling process shall produce a valuable product or intermediate. The product or intermediate is valuable if it is:

(i) Sold to a third party; or

(ii) Used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.

(3) The generator and the recycler shall manage the hazardous secondary material as a valuable commodity when it is under their control. Where there is an analogous raw material, the hazardous secondary material shall be managed, at a minimum, in a manner consistent with the management of the raw material or in an equally protective manner. Where there is no analogous raw material, the hazardous secondary material shall be contained. Hazardous secondary materials that are released to the environment and are not recovered immediately are discarded.

(b) The following factor shall be considered in making a determination as to the overall legitimacy of a specific recycling activity.

(1) The product of the recycling process does not:

(i) Contain significant concentrations of any hazardous constituents found in Section R315-261-1092 that are not found in analogous products; or

(ii) Contain concentrations of hazardous constituents found in Section R315-261-1092 at levels that are significantly elevated from those found in analogous products, or

(iii) Exhibit a hazardous characteristic, as defined in Subsections R315-261-20 through 24, that analogous products do not exhibit.

(2) In making a determination that a hazardous secondary material is legitimately recycled, persons shall evaluate all factors and consider legitimacy as a whole. If, after careful evaluation of these considerations, the factor in this paragraph is not met, then this fact may be an indication that the material is not legitimately recycled. However, the factor in this paragraph does not have to be met for the recycling to be considered legitimate. In evaluating the extent to which this factor is met and in determining whether a process that does not meet this factor is still legitimate, persons can consider exposure from toxics in the product, the bioavailability of the toxics in the product and other relevant considerations.

KEY: hazardous waste
Date of Last Change: January 13, 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-1-301; 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-261**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:

R315-261. General Requirements -- Identification and Listing of Hazardous Waste

3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:

Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.

4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:

No comments were received since the last five-year review of this rule.

5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:

Rule R315-261 identifies those solid wastes which are subject to regulation as hazardous wastes under Rules R315-262 through 265, 268, 270, and 124 and which are subject to the notification requirements of these rules. This required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.

Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-261. General Requirements -- Identification and Listing of Hazardous Waste.
R315-261-1. Purpose and Scope.

(a) This rule identifies those solid wastes that are subject to regulation as hazardous wastes under Rules R315-262 through R315-265, R315-268, R315-270, and R315-124 and that are subject to the notification requirements of Rules R315-261 through R315-265, R315-268, R315-270, R315-273 and R315-124.

(1) Sections R315-261-1 through R315-261-9 define the terms "solid waste" and "hazardous waste", identify those wastes that are excluded from regulation under Rules R315-262 through R315-266, R315-268 and R315-270 and establish special management requirements for hazardous waste that is recycled.

(2) Sections R315-261-10 and R315-261-11 set forth the criteria used to identify characteristics of hazardous waste and to list particular hazardous wastes.

(3) Sections R315-261-20 through R315-261-24 identify characteristics of hazardous waste.

(4) Sections R315-261-30 through R315-261-35 list particular hazardous wastes.

(b)(1) The definition of solid waste contained in this rule applies only to wastes that also are hazardous for purposes of the rules implementing Title 19 Chapter 6, Hazardous Substances. For example, it does not apply to materials such as non-hazardous scrap, paper, textiles, or rubber that are not otherwise hazardous wastes and that are recycled.

(2) Rule R315-261 does not identify each of the materials that are solid wastes and hazardous wastes under the Utah Solid and Hazardous Waste Act. A material that is not defined as a solid waste in Rule R315-261, or is not a hazardous waste identified or listed in Rule R315-261, is still a solid waste and a hazardous waste for purposes of the Utah Solid and Hazardous Waste Act if:

(i) in the case of Section 19-6-109, the director has reason to believe that the material may be a solid waste within the meaning of Subsection 19-6-102(13) and a hazardous waste within the meaning of Subsection 19-6-102(7); or

(ii) in the case of Section 19-6-115, the material is presenting an imminent and substantial danger to human health or the environment.

(c) For the purposes of Sections R315-261-2 and R315-261-6:

(1) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose that it was produced for without processing.

(2) "Sludge" has the meaning used in Section R315-260-10.

(3) A "by-product" is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

(4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents. In addition, for purposes of Subsections R315-261-4(a)(23), and R315-261-4(a)(24) smelting, melting and refining furnaces are considered to be solely engaged in metals reclamation if the metal recovery from the hazardous secondary materials meets the requirements specified for metals recovery from hazardous waste found in Subsections R315-266-100(d)(1) through R315-266-100(d)(3), and if the residuals meet the requirements specified in Section R315-266-112.

(5) A material is "used or reused" if it is either:

(i) used as an ingredient, including use as an intermediate, in an industrial process to make a product, for example, distillation bottoms from one process used as feedstock in another process. However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products, as when metals are recovered from metal-containing secondary materials; or

(ii) used in a particular function or application as an effective substitute for a commercial product, for example, spent pickle liquor used as phosphorous precipitant and sludge conditioner in wastewater treatment.

(6) "Scrap metal" is bits and pieces of metal parts; for example bars, turnings, rods, sheets, or wire; or metal pieces that may be combined together with bolts or soldering; for example radiators, scrap automobiles, or railroad box cars; which if worn or superfluous can be recycled.

(7) A material is "recycled" if it is used, reused, or reclaimed.

(8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled and that during the calendar year, commencing on January 1, the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75% by weight or volume of the amount of that material accumulated at the beginning of the period. Materials shall be placed in a storage unit with a label indicating the first date that the material began to be accumulated. If placing a label on the storage unit is not practicable, the accumulation period shall be documented through an inventory log or other appropriate method. In calculating the percentage of turnover, the 75% requirement is to be applied to each material of the same type, for example, slags from a single smelting process, that is recycled in the same way, that is, that the same material is recovered from or that is used in the same way. Materials accumulating in units that would be exempt from regulation under Subsection R315-261-4(c) are not to be included in making the calculation. Materials that are already defined as solid wastes also are not to be included in making the calculation. Materials are no longer in this category once they are removed from accumulation for recycling, however.

(9) "Excluded scrap metal" is processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal.

(10) "Processed scrap metal" is scrap metal that has been manually or physically altered to either separate it into distinct materials to enhance economic value or to improve the handling of materials. Processed scrap metal includes scrap metal that has been baled, shredded, sheared, chopped, crushed, flattened, cut, melted, or separated by metal type, that is, sorted, and, fines, drosses and related materials that have been agglomerated. Shredded circuit boards being sent for recycling are not considered processed scrap metal. They are covered under the exclusion from the definition of solid waste for shredded circuit boards being recycled Subsection R315-261-4(a)(14).

(11) "Home scrap metal" is scrap metal as generated by steel mills, foundries, and refineries such as turnings, cuttings, punchings, and borings.

(12) "Prompt scrap metal" is scrap metal as generated by the metal working or fabrication industries and includes scrap metal such as turnings, cuttings, punchings, and borings. Prompt scrap is also known as industrial or new scrap metal.

R315-261-2. Definition of Solid Waste.

(a)(1) A solid waste is any discarded material that is not excluded by Subsection R315-261-4(a) or that is not excluded under Sections R315-260-30 and R315-260-31 or that is not excluded by a non-waste determination under Sections R315-260-30 and R315-260-34.

(2)(i) A discarded material is any material which is:

(A) Abandoned, as explained in Subsection R315-261-2(b); or

(B) Recycled, as explained in Subsection R315-261-2(c); or

(C) Considered inherently waste-like, as explained in Subsection R315-261-2(d).

(b) Materials are solid waste if they are abandoned by being:

(1) Disposed of; or

(2) Burned or incinerated; or

(3) Accumulated, stored, or treated, but not recycled, before or in lieu of being abandoned by being disposed of, burned, or incinerated; or

(4) Sham recycled, as explained in Subsection R315-261-2(g)

(c) Materials are solid wastes if they are recycled-or accumulated, stored, or treated before recycling-as specified in Subsections R315-261-2(c)(1) through (4).

(1) Used in a manner constituting disposal.

(i) Materials noted with a "*" in Column 1 of Table 1 are solid wastes when they are:

(A) Applied to or placed on the land in a manner that constitutes disposal; or

(B) Used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land (in which cases the product itself remains a solid waste).

(ii) However, commercial chemical products listed in Section R315-261-33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) Burning for energy recovery.

(i) Materials noted with a "*" in column 2 of Table 1 are solid wastes when they are:

(A) Burned to recover energy;

(B) Used to produce a fuel or are otherwise contained in fuels, in which cases the fuel itself remains a solid waste.

(ii) However, commercial chemical products listed in Section R315-261-33 are not solid wastes if they are themselves fuels.

(3) Reclaimed. Materials noted with a "-" in column 3 of Table 1 are not solid wastes when reclaimed. Materials noted with an "*" in column 3 of Table 1 are solid wastes when reclaimed unless they meet the requirements of Subsections R315-261-4(a)(17), or R315-261-4(a)(23), R315-261-4(a)(24) or R35-261-4(a)(27).

(4) Accumulated speculatively. Materials noted with a "*" in column 4 of Table 1 are solid wastes when accumulated speculatively.

Table 1

	Use Constituting Disposal 261-2(c)(1)	Energy recovery/ fuel 261-2(c) (2)	Reclamation 261-2(c)(3) except as provided in 261-4-(a)(17) 261-4(a)(23) 261-4(a)(24) or 261-4(a)(27)	Speculative accumulation 261-2(c)(4)
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 261-31 or 261-32)	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
By-products (listed in 261-31 or 261-32	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
Commercial chemical products listed in 261-33	(*)	(*)		
Scrap metal that is not excluded under 261-4(a)(13)	(*)	(*)	(*)	(*)

Note 1: All rule references in Table 1 are to R315.

Note 2: The terms "spent materials," "sludges," "by-products," and "scrap metal" and "processed scrap metal" are defined in Section R315-261-1.

(d) Inherently waste-like materials. The following materials are solid wastes when they are recycled in any manner:

(1) Hazardous Waste Nos. F020; F021, unless used as an ingredient to make a product at the site of generation; F022; F023; F026; and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in Sections R315-261-20 through 24 and 30 through 35, except for brominated material that meets the following criteria:

(i) The material shall contain a bromine concentration of at least 45%; and

(ii) The material shall contain less than a total of 1% of toxic organic compounds listed in Rule R315-261 appendix VIII; and

(iii) The material is processed continually on-site in the halogen acid furnace via direct conveyance, hard piping.

(3) The Board shall use the following criteria to add wastes to Subsection R315-261-2(d)(1) or (2):

(i)(A) The materials are ordinarily disposed of, burned, or incinerated; or

(B) The materials contain toxic constituents listed in appendix VIII of Rule R315-261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

(ii) The material may pose a substantial hazard to human health and the environment when recycled.

(e) Materials that are not solid waste when recycled.

(1) Materials are not solid wastes when they can be shown to be recycled by being:

(i) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) Used or reused as effective substitutes for commercial products; or

(iii) Returned to the original process from which they are generated, without first being reclaimed or land disposed. The material shall be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials shall be managed such that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at Subsection R315-261-4(a)(17) apply rather than Subsection R315-261-2(e)(1)(iii).

(2) The following materials are solid wastes, even if the recycling involves use, reuse, or return to the original process described in Subsections R315-261-2(e)(1)(i) through (iii):

(i) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) Materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) Materials accumulated speculatively; or

(iv) Materials listed in Subsections R315-261-2(d)(1) and (d)(2).

(f) Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation. Respondents in actions to enforce rules implementing Sections 19-6-101 through 125 who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, shall demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they shall provide appropriate documentation, such as contracts showing that a second person uses the material as an ingredient in a production process, to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials shall show that they have the necessary equipment to do so.

(g) Sham recycling. A hazardous secondary material found to be sham recycled is considered discarded and a solid waste. Sham recycling is recycling that is not legitimate recycling as defined in Section R315-260-43.

R315-261-3. Definition of Hazardous Waste.

(a) A solid waste, as defined in Section R315-261-2, is a hazardous waste if:

(1) It is not excluded from regulation as a hazardous waste under Subsection R315-261-4(b); and

(2) It meets any of the following criteria:

(i) It exhibits any of the characteristics of hazardous waste identified in Sections R315-261-20 through 24. However, any mixture of a waste from the extraction, beneficiation, and processing of ores and minerals excluded under Subsection R315-261-4(b)(7) and any other solid waste exhibiting a characteristic of hazardous waste under Sections R315-261-20 through 24 is a hazardous waste only if it exhibits a characteristic that would not have been exhibited by the excluded waste alone if such mixture had not occurred, or if it continues to exhibit any of the characteristics exhibited by the non-excluded wastes prior to mixture. Further, for the purposes of applying the Toxicity Characteristic to such mixtures, the mixture is also a hazardous waste if it exceeds the maximum concentration for any contaminant listed in table 1 to Section R315-261-24 that would not have been exceeded by the excluded waste alone if the mixture had not occurred or if it continues to exceed the maximum concentration for any contaminant exceeded by the nonexempt waste prior to mixture.

(ii) It is listed in Sections R315-261-30 through 35 and has not been excluded from the lists in Sections R315-261-30 through 35 under Sections R315-260-.20 and R315-260-22.

(iii) (Reserved)

(iv) It is a mixture of solid waste and one or more hazardous wastes listed in Sections R315-261-30 through 35 and has not been excluded from Subsection R315-261-3(a)(2) under Sections R315-260-20 and R315-260-22, Subsection R315-261-3(g), or Subsection R315-261-3(h); however, the following mixtures of solid wastes and hazardous wastes listed in Sections R315-261-30 through 35 are not hazardous wastes, except by application of Subsections R315-261-3(a)(2)(i) or (ii), if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act,including wastewater at facilities which have eliminated the discharge of wastewater, and;

(A) One or more of the following spent solvents listed in Section R315-261-31: benzene, carbon tetrachloride, tetrachloroethylene, trichloroethylene or the scrubber waters derived-from the combustion of these spent solvents-Provided, That the maximum total weekly usage of these solvents, other than the amounts that can be demonstrated not to be discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 1 part per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system, at facilities subject to regulation under the Utah Air Conservation Act, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions, does not exceed 1 part per million on an average weekly basis. Any facility that uses benzene as a solvent and claims this exemption shall use an aerated biological wastewater treatment system and shall use only lined surface impoundments or tanks prior to secondary clarification in the wastewater treatment system. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the Director. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if the Director finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals

accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(B) One or more of the following spent solvents listed in Section R315-261-31: methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, 2-ethoxyethanol, or the scrubber waters derived-from the combustion of these spent solvents-Provided That the maximum total weekly usage of these solvents, other than the amounts that can be demonstrated not to be discharged to wastewater, divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pretreatment system does not exceed 25 parts per million, or the total measured concentration of these solvents entering the headworks of the facility's wastewater treatment system; at facilities subject to regulation under the Utah Air Conservation Act, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions; does not exceed 25 parts per million on an average weekly basis. Facilities that choose to measure concentration levels shall file a copy of their sampling and analysis plan with the Director. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if the Director finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(C) One of the following wastes listed in Section R315-261-32, provided that the wastes are discharged to the refinery oil recovery sewer before primary oil/water/solids separation-heat exchanger bundle cleaning sludge from the petroleum refining industry, EPA Hazardous Waste No. K050; crude oil storage tank sediment from petroleum refining operations, EPA Hazardous Waste No. K169; clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations, EPA Hazardous Waste No. K170; spent hydrotreating catalyst, EPA Hazardous Waste No. K171; and spent hydrorefining catalyst, EPA Hazardous Waste No. K172; or

(D) A discarded hazardous waste, commercial chemical product, or chemical intermediate listed in Sections R315-261-31 through R315-261-33, arising from de minimis losses of these materials. For purposes of this Subsection R315-261-3(a)(2)(iv)(D), de minimis losses are inadvertent releases to a wastewater treatment system, including those from normal material handling operations, e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials; minor leaks of process equipment, storage tanks or containers; leaks from well maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing. Any manufacturing facility that claims an exemption for de minimis quantities of wastes listed in Sections R315-261-31 through R315-261-32, or any nonmanufacturing facility that claims an exemption for de minimis quantities of wastes listed in Sections R315-261-30 through 35 shall either have eliminated the discharge of wastewaters or have included in its Clean Water Act permit application or submission to its pretreatment control authority the constituents for which each waste was listed in Rule R315-261 appendix VII; and the constituents in the table "Treatment Standards for Hazardous Wastes" in Section R315-268-40 for which each waste has a treatment standard (i.e., Land Disposal Restriction constituents). A facility is eligible to claim the exemption once the permit writer or control authority has been notified of possible de minimis releases via the Clean Water Act permit application or the pretreatment control authority submission. A copy of the Clean Water permit application or the submission to the pretreatment control authority shall be placed in the facility's on-site files; or

(E) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in Sections R315-261-30 through 35, Provided, That the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system or provided the wastes, combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation; or

(F) One or more of the following wastes listed in Section R315-261.32: wastewaters from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K157 - Provided that the maximum weekly usage of formaldehyde, methyl chloride, methylene chloride, and triethylamine, including all amounts that cannot be demonstrated to be reacted in the process, destroyed through treatment, or is recovered, i.e., what is discharged or volatilized, divided by the average weekly flow of process wastewater prior to any dilution into the headworks of the facility's wastewater treatment system does not exceed a total of 5 parts per million by weight or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Utah Air Conservation Act, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 parts per million on an average weekly basis. Facilities that choose to measure concentration levels shall file copy of their sampling and analysis plan with the Director. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if the Director finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected; or

(G) Wastewaters derived-from the treatment of one or more of the following wastes listed in Section R315-261-32:organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K156. Provided, that the maximum concentration of formaldehyde, methyl chloride, methylene chloride, and triethylamine prior to any dilutions into the headworks of the facility's wastewater treatment system does not exceed a total of 5 milligrams per liter or the total measured concentration of these chemicals entering the headworks of the facility's wastewater treatment system (at facilities subject to regulation under the Utah Air Conservation Act, or at facilities subject to an enforceable limit in a federal operating permit that minimizes fugitive emissions), does not exceed 5 milligrams per liter on an average weekly basis. Facilities that choose to measure concentration levels shall file copy of their sampling and analysis plan with the Director. A facility shall file a copy of a revised sampling and analysis plan only if the initial plan is rendered inaccurate by changes in the facility's operations. The sampling and analysis plan shall include the monitoring point location (headworks), the sampling frequency and methodology, and a list of constituents to be monitored. A facility is eligible for the direct monitoring option once they receive confirmation that the sampling and analysis plan has been received by the Director. The Director may reject the sampling and analysis plan if

the Director finds that, the sampling and analysis plan fails to include the above information; or the plan parameters would not enable the facility to calculate the weekly average concentration of these chemicals accurately. If the Director rejects the sampling and analysis plan or if the Director finds that the facility is not following the sampling and analysis plan, the Director shall notify the facility to cease the use of the direct monitoring option until such time as the bases for rejection are corrected.

(v) Rebuttable presumption for used oil. Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in Sections R315-261-30 through 35. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste; for example, to show that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in appendix VIII of Rule R315-261.

(A) The rebuttable presumption does not apply to metalworking oils/fluids containing chlorinated paraffins, if they are processed, through a tolling agreement, to reclaim metalworking oils/fluids. The presumption does apply to metalworking oils/fluids if such oils/fluids are recycled in any other manner, or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption does apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(b) A solid waste which is not excluded from regulation under Subsection R315-261-3(a)(1) becomes a hazardous waste when any of the following events occur:

(1) In the case of a waste listed in Sections R315-261-30 through 35, when the waste first meets the listing description set forth in R315-261-30 through 35.

(2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in R315-261-30 through 35 is first added to the solid waste.

(3) In the case of any other waste, including a waste mixture, when the waste exhibits any of the characteristics identified in Sections R315-261-20 through 24.

(c) Unless and until it meets the criteria of Subsection R315-261-3(d):

(1) A hazardous waste shall remain a hazardous waste.

(2)(i) Except as otherwise provided in Subsections R315-261-3(c)(2)(ii), or (g), any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash emission control dust, or leachate, but not including precipitation run-off, is a hazardous waste. However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.

(ii) The following solid wastes are not hazardous even though they are generated from the treatment, storage, or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste:

(A) Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry, SIC Codes 331 and 332.

(B) Waste from burning any of the materials exempted from regulation by Subsection R315-261-6(a)(3)(iii) and (iv).

(C)(I) Nonwastewater residues, such as slag, resulting from high temperature metals recovery processing of K061, K062 or F006 waste, in units identified as rotary kilns, flame reactors, electric furnaces, plasma arc furnaces, slag reactors, rotary hearth furnace/electric furnace combinations or industrial furnaces, as defined in Section R315-260-10, that are disposed in solid waste landfills regulated under Rules R315-301 through R315-320, provided that these residues meet the generic exclusion levels identified in the tables below for all constituents, and exhibit no characteristics of hazardous waste. Testing requirements shall be incorporated in a facility's waste analysis plan or a generator's self-implementing waste analysis plan; at a minimum, composite samples of residues shall be collected and analyzed quarterly and/or when the process or operation generating the waste changes. Persons claiming this exclusion in an enforcement action shall have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements.

Table	
Constituent	Maximum for any single composite sample-TCLP (mg/l)
Generic exclusion levels for K061 and K062 nonwastewater high temperature metals recovery (HTMR) residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050
Chromium (total)	0.33
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70
Generic exclusion levels for F006 nonwastewater high temperature metals recovery (HTMR) residues	
Antimony	0.10
Arsenic	0.50
Barium	7.6
Beryllium	0.010
Cadmium	0.050

Chromium (total)	0.33
Cyanide (total) (mg/kg)	1.8
Lead	0.15
Mercury	0.009
Nickel	1.0
Selenium	0.16
Silver	0.30
Thallium	0.020
Zinc	70

(II) A one-time notification and certification shall be placed in the facility's files and sent to the Director for K061, K062 or F006 high temperature metals recovery residues that meet the generic exclusion levels for all constituents and do not exhibit any characteristics that are sent to solid waste landfills regulated under Rules R315-301 through R315-320. The notification and certification that is placed in the generators or treaters files shall be updated if the process or operation generating the waste changes and/or if the landfill receiving the waste changes. However, the generator or treater need only notify the Director on an annual basis if such changes occur. Such notification and certification should be sent to the Director by the end of the calendar year, but no later than December 31. The notification shall include the following information: The name and address of the solid waste landfill regulated under Rules R315-301 through R315-320 receiving the waste shipments; the EPA Hazardous Waste Number(s) and treatability group(s) at the initial point of generation; and, the treatment standards applicable to the waste at the initial point of generation. The certification shall be signed by an authorized representative and shall state as follows: "I certify under penalty of law that the generic exclusion levels for all constituents have been met without impermissible dilution and that no characteristic of hazardous waste is exhibited. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

(D) Biological treatment sludge from the treatment of one of the following wastes listed in Section R315-261-32: organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K156, and wastewaters from the production of carbamates and carbamoyl oximes, EPA Hazardous Waste No. K157.

(E) Catalyst inert support media separated from one of the following wastes listed in Section R315-261-32: - Spent hydrotreating catalyst, EPA Hazardous Waste No. K171), and Spent hydrorefining catalyst (EPA Hazardous Waste No. K172.

(d) Any solid waste described in Subsection R315-261-3(c) is not a hazardous waste if it meets the following criteria:

(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Sections R315-261-20 through 24. However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of Rule R315-268, even if they no longer exhibit a characteristic at the point of land disposal.

(2) In the case of a waste which is a listed waste under Sections R315-261-30 through 35, contains a waste listed under Sections R315-261-30 through 35 or is derived from a waste listed in Sections R315-261-30 through 35, it also has been excluded from Subsection R315-261-3(c) under Sections R315-260-20 and R315-260-22.

(e) (Reserved)

(f) Notwithstanding Subsections R315-261-3(a) through (d) and provided the debris as defined in Rule R315-268 does not exhibit a characteristic identified in Sections R315-261-20 through 24, the following materials are not subject to regulation under Rules R315-260 through 266, R315-268, or R315-270:

(1) Hazardous debris as defined in Rule R315-268 that has been treated using one of the required extraction or destruction technologies specified in Table 1 of Section R315-268-45; persons claiming this exclusion in an enforcement action shall have the burden of proving by clear and convincing evidence that the material meets all of the exclusion requirements; or

(2) Debris as defined in Rule R315-268 that the Director, considering the extent of contamination, has determined is no longer contaminated with hazardous waste.

(g)(1) A hazardous waste that is listed in Sections R315-261-30 through 35 solely because it exhibits one or more characteristics of ignitability as defined under Section R315-261-21, corrosivity as defined under Section R315-261-22, or reactivity as defined under Section R315-261-23 is not a hazardous waste, if the waste no longer exhibits any characteristic of hazardous waste identified in Sections R315-261-20 through 24.

(2) The exclusion described in Subsection R315-261-3(g)(1) also pertains to:

(i) Any mixture of a solid waste and a hazardous waste listed in Sections R315-261-30 through 35 solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under Subsection R315-261-3(a)(2)(iv); and

(ii) Any solid waste generated from treating, storing, or disposing of a hazardous waste listed in Sections R315-261-30 through 35 solely because it exhibits the characteristics of ignitability, corrosivity, or reactivity as regulated under Subsection R315-261-3(c)(2)(i).

(3) Wastes excluded under Subsection R315-261-3(g) are subject to Rule R315-268, as applicable, even if they no longer exhibit a characteristic at the point of land disposal.

(4) Any mixture of a solid waste excluded from regulation under Subsection R315-261-4(b)(7) and a hazardous waste listed in Sections R315-261-30 through 35 solely because it exhibits one or more of the characteristics of ignitability, corrosivity, or reactivity as regulated under Subsection R315-261-3(a)(2)(iv) is not a hazardous waste, if the mixture no longer exhibits any characteristic of hazardous waste identified in Sections R315-261-20 through 24 for which the hazardous waste listed in Sections R315-261-30 through 35 was listed.

R315-261-4. Exclusions.

(a) Materials that are not solid wastes. The materials listed in Subsections R315-261-4(a)(1) through R315-261-4(a)(27) are not solid wastes for Rule R315-261:

(1)(i) domestic sewage; and

(ii) any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment, except as prohibited by Section R315-266-505 and Clean Water Act requirements at 40 CFR 403.5(b). "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under section 402 of the Clean Water Act, as amended. This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.

(3) Irrigation return flows.

(4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.

(5) Materials subjected to in-situ mining techniques that are not removed from the ground as part of the extraction process.

(6) Pulping liquors that is black liquor, that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in Subsection R315-261-1(c).

(7) Spent sulfuric acid used to produce virgin sulfuric acid provided it is not accumulated speculatively as defined in Subsection R315-261-1(c).

(8) Secondary materials that are reclaimed and returned to the original process or processes that they were generated in if they are reused in the production process provided:

(i) only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(ii) reclamation does not involve controlled flame combustion, such as occurs in boilers, industrial furnaces, or incinerators;

(iii) the secondary materials are never accumulated in tanks for over 12 months without being reclaimed; and

(iv) the reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

(9)(i) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose.

(ii) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

(iii) Before reuse, the wood preserving wastewaters and spent wood preserving solutions described in Subsections R315-261-4(a)(9)(i) and R315-261-4(a)(9)(ii), so long as they meet the conditions contained in Subsections R315-261-4(a)(9)(iii)(A) through R315-261-4(a)(9)(iii)(E):

(A) The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water borne plants in the production process for their original intended purpose.

(B) Before reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both.

(C) Any unit used to manage wastewaters or spent wood preserving solutions or both before reuse can be visually or otherwise determined to prevent releases.

(D) Any drip pad used to manage the wastewaters or spent wood preserving solutions or both before reuse complies with the standards in Sections R315-265-440 through R315-265-445, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste.

(E) Before operating pursuant to this exclusion, the plant owner or operator prepares a one-time notification stating that the plant intends to claim the exclusion, giving the date when the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation." The plant shall maintain a copy of that document in its on-site records until closure of the facility. The exclusion applies so long as the plant meets each of the conditions. If the plant goes out of compliance with any condition, it may apply to the director for reinstatement. The director may reinstate the exclusion upon finding that the plant has returned to compliance with each of the conditions and that the violations are not likely to recur.

(10) EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are hazardous only because they exhibit the Toxicity Characteristic specified in Section R315-261-24, after generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar before the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

(11) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums, if shipped and not land disposed before recovery.

(12)(i) Oil-bearing hazardous secondary materials that is sludges, byproducts, or spent materials, that are generated at a petroleum refinery, SIC code 2911, and are inserted into the petroleum refining process, SIC code 2911-including distillation, catalytic cracking, fractionation, or thermal cracking units namely cokers, unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under Subsection R315-261-4(12)(i), provided the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the petroleum refinery when they are generated, or sent directly to another petroleum refinery and still be excluded under this provision. Except as provided in Subsection R315-261-4(a)(12)(ii), oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry namely from sources other than petroleum refineries, are not excluded under Section R315-261-4. Residuals generated from processing or recycling materials excluded under Subsection R315-261-4(a)(12)(i), if the materials as generated would have otherwise met a listing under Sections R315-261-30 through R315-261-35, are designated as F037 listed wastes if disposed of or intended for disposal.

(ii) Recovered oil that is recycled in the manner and with the conditions as described in Subsection R315-261-4(a)(12)(i). Recovered oil is oil that has been reclaimed from secondary materials, including wastewater, generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto, SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172. Recovered oil does not include oil-bearing hazardous wastes listed in Sections R315-261-30 through R315-261-35; however, oil recovered from these wastes may be considered recovered oil. Recovered oil does not include used oil as defined in Subsection 19-6-703(19).

(13) Excluded scrap metal includes processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal being recycled.

(14) Shredded circuit boards being recycled provided they are:

(i) stored in containers sufficient to prevent a release to the environment before recovery; and

(ii) free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

(15) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.

(16) Reserved.

(17) Spent materials, as defined in Section R315-261-1, other than hazardous wastes listed in Sections R315-261-30 through R315-261-35, generated within the primary mineral processing industry that minerals, acids, cyanide, water, or other values are recovered from by mineral processing or by beneficiation, provided:

(i) the spent material is legitimately recycled to recover minerals, acids, cyanide, water or other values;

(ii) the spent material is not accumulated speculatively; and

(iii) except as provided in Subsection R315-261-4(a)(17)(iv), the spent material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building shall be an engineered structure with a floor, walls, and a roof each being made of non-earthen materials providing structural support, except smelter buildings may have partially earthen floors provided the secondary material is stored on the non-earthen portion, and have a roof suitable for diverting rainwater away from the foundation; a tank shall be free standing, not be a surface impoundment, as defined in Section R315-260-10, and be manufactured of a material suitable for containment of its contents; a container shall be free standing and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate that may be subject to wind dispersal, the owner or operator shall operate these units in a manner that controls fugitive dust. Tanks, containers, and buildings shall be designed, constructed and operated to prevent significant releases to the environment of these materials.

(iv) The director may make a site-specific determination, after public review and comment, that only solid mineral processing spent material may be placed on pads rather than tanks containers, or buildings. Solid mineral processing spent materials do not contain any free liquid. The director shall affirm that pads are designed, constructed and operated to prevent significant releases of the secondary material into the environment. Pads shall provide the degree of containment given by the non-RCRA tanks, containers and buildings eligible for exclusion.

(A) The director shall also consider if storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water, air exposure pathways are:

(I) the volume and physical and chemical properties of the secondary material, including its potential for migration off the pad;

(II) the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway; and

(III) the possibility and extent of harm to human and environmental receptors via each exposure pathway.

(B) Pads shall meet the following minimum standards: Be designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material, capable of withstanding physical stresses associated with placement and removal, have run-on and runoff controls, or both, be operated in a manner that controls fugitive dust, and have integrity assurance through inspections and maintenance programs.

(C) Before making a determination under Subsection R315-261-4(a)(17)(iv), the director shall provide notice and the opportunity for comment to each person potentially interested in the determination. This can be accomplished by placing notice of this action in major local newspapers, or broadcasting notice over local radio stations.

(v) The owner or operator provides notice to the director providing the following information: the types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in land-based units. This notification shall be updated if there is a change in the type of materials recycled or the location of the recycling process.

(vi) For purposes of Subsection R315-261-4(b)(7), mineral processing spent materials shall be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

(18) Petrochemical recovered oil from an associated organic chemical manufacturing facility, if the oil is to be inserted into the petroleum refining process, SIC code 2911, along with normal petroleum refinery process streams, provided:

(i) the oil is hazardous only because it exhibits the characteristic of ignitability, as defined in Section R315-261-21, or toxicity for benzene or both, Section R315-261-24, waste code D018; and

(ii) the oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An "associated organic chemical manufacturing facility" is a facility where the primary SIC code is 2869, but where operations may also include SIC codes 2821, 2822, and 2865; and is physically co-located with a petroleum refinery; and where the petroleum refinery that the oil being recycled is returned to also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. "Petrochemical recovered oil" is oil that has been reclaimed from secondary materials that is sludges, byproducts, or spent materials, including wastewater, from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.

(19) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land, or accumulated speculatively as defined in Subsection R315-261-1(c).

(20) Hazardous secondary materials used to make zinc fertilizers, provided the conditions specified in Subsections R315-261-4(a)(20)(i) through R315-261-4(a)(20)(v) are satisfied:

(i) Hazardous secondary materials used to make zinc micronutrient fertilizers may not be accumulated speculatively, as defined in Subsection R315-261-1(c)(8).

(ii) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers shall:

(A) Submit a one-time notice to the director, which contains the name, address and EPA ID number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in Subsection R315-261-4(a)(20).

(B) Store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose shall be an engineered structure made of non-earthen materials that provide structural support, and shall have a floor, walls and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose shall be structurally sound and, if outdoors, shall have roofs or covers that prevent contact with wind and rain. Containers used for this purpose shall be kept closed except if it is necessary to add or remove material, and shall be in sound condition. Containers that are stored outdoors shall be managed within storage areas that:

(I) have containment structures or systems sufficiently impervious to contain leaks, spills and accumulated precipitation; and

(II) provide for effective drainage and removal of leaks, spills and accumulated precipitation; and

(III) prevent run-on into the containment system.

(C) With each off-site shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of Subsection R315-261-4(a)(20).

(D) Maintain at the generator's or intermediate handlers's facility for no less than three years records of each shipment of excluded hazardous secondary materials. For each shipment these records shall at a minimum contain the information required by Subsections R315-261-4(a)(20)(ii)(D)(I) through R315-261-4(a)(20(ii)(D)(III):

(I) name of the transporter and date of the shipment;

(II) name and address of the facility that received the excluded material, and documentation confirming receipt of the shipment; and

(III) type and quantity of excluded secondary material in each shipment.

(iii) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials shall:

(A) store excluded hazardous secondary materials in accordance with the storage requirements for generators and intermediate handlers, as specified in Subsection R315-261-4(a)(20)(ii)(B);

(B) submit a one-time notification to the director that, at a minimum, specifies the name, address and EPA ID number of the manufacturing facility, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in Subsection R315-261-4(a)(20);

(C) maintain for a minimum of three years records of each shipment of excluded hazardous secondary materials received by the manufacturer, which shall at a minimum identify for each shipment the name and address of the generating facility, name of transporter and date the materials were received, the quantity received, and a brief description of the industrial process that generated the material; and

(D) submit to the director an annual report that identifies the total quantities of any excluded hazardous secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial processes that they were generated from.

(iv) Nothing in Section R315-261-4 preempts, overrides or otherwise negates the provision in Section R315-262-11, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(v) Interim status and permitted storage units that have been used to store only zinc-bearing hazardous wastes before the submission of the one-time notice described in Subsection R315-261-4(a)(20)(ii)(A), and that afterward will be used only to store hazardous secondary materials excluded under Subsection R315-261-4(a)(20), are not subject to the closure requirements of Rules R315-264 and R315-265.

(21) Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under Subsection R315-261-4(a)(20), provided:

(i) The fertilizers meet the contaminant limits specified in the Table:

(A) For metal contaminants:

Table	
Constituent	Maximum Allowable Total Concentration in Fertilizer, per Unit (1%) of Zinc (ppm)
Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

(B) For dioxin contaminants the fertilizer shall contain no more than eight parts per trillion of dioxin, measured as toxic equivalent (TEQ).

(ii) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals no less than each six month period, and for dioxins no less than each 12 month period. Testing shall also be performed if changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the products introduced into commerce.

(iii) The manufacturer maintains for no less than three years records of each sampling and analyses performed for purposes of determining compliance with the requirements of Subsection R315-261-4(a)(21)(ii). These records shall at a minimum include:

(A) the dates and times product samples were taken, and the dates the samples were analyzed;

(B) the names and qualifications of the person taking the samples;

(C) a description of the methods and equipment used to take the samples;

(D) the name and address of the laboratory facility where analyses of the samples were performed;

(E) a description of the analytical methods used, including any cleanup and sample preparation methods; and

(F) any laboratory analytical results used to determine compliance with the contaminant limits specified in this Subsection R315-261-4(a)(21).

(22) Used cathode ray tubes (CRTs).

(i) Used, intact CRTs as defined in Section R315-260-10 are not solid wastes within the United States unless they are disposed, or unless they are speculatively accumulated as defined in Subsection R315-261-1(c)(8) by CRT collectors or glass processors.

(ii) Used, intact CRTs as defined in Section R315-260-10 are not solid wastes if exported for recycling provided they meet the requirements of Section R315-261-40.

(iii) Used, broken CRTs as defined in Section R315-260-10 are not solid wastes provided they meet the requirements of Section R315-261-39.

(iv) Glass removed from CRTs is not a solid waste provided it meets the requirements of Subsection R315-261-39(c).

(23) Hazardous secondary material generated and legitimately reclaimed within the United States or its territories and under the control of the generator, provided the material complies with Subsections R315-261-4(a)(23)(i) and R315-261-4(a)(23)(ii):

(i)(A) the hazardous secondary material is generated and reclaimed at the generating facility, for purposes of this definition, generating facility means any contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator; or

(B) the hazardous secondary material is generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person as defined in Section R315-260-10, and if the generator provides one of the following certifications: "On behalf of (insert generator facility name), I certify that this facility will send the indicated hazardous secondary material to (insert reclaimer facility name), which is controlled by (insert generator facility name) and that (insert name of either facility) has acknowledged full responsibility for the safe management of the hazardous secondary material," or "On behalf of (insert generator facility name), I certify that this facility will send the indicated hazardous secondary material to (insert reclaimer facility name), that both facilities are under common control, and that (insert name of either facility) has acknowledged full responsibility for the safe management of the hazardous secondary material." For purposes of this paragraph, "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person as defined in Section R315-260-10

may not be considered to "control" these facilities. The generating and receiving facilities shall both maintain at their facilities for no less than three years records of hazardous secondary materials sent or received under this exclusion. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received under the exclusion. These requirements may be satisfied by routine business records such as financial records, bills of lading, copies of U.S. Department of Transportation (DOT) shipping papers, or electronic confirmations; or

(C) the hazardous secondary material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor, if the tolling contractor certifies the following: "On behalf of (insert tolling contractor name), I certify that (insert tolling contractor name) has a written contract with (insert toll manufacturer name) to manufacture (insert name of product or intermediate) which is made from specified unused materials, and that (insert tolling contractor name) will reclaim the hazardous secondary materials generated during this manufacture. On behalf of (insert tolling contractor name), I also certify that (insert tolling contractor name) keeps ownership of, and responsibility for, the hazardous secondary materials that are generated during the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process". The tolling contractor shall maintain at its facility for no less than three years records of hazardous secondary materials received pursuant to its written contract with the tolling manufacturer, and the tolling manufacturer shall maintain at its facility for no less than three years records of hazardous secondary materials shipped pursuant to its written contract with the tolling contractor. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received pursuant to the written contract. These requirements may be satisfied by routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations. For purposes of Subsection R315-261-4(a)(23)(i)(C), tolling contractor means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. Toll manufacturer means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.

(ii)(A) The hazardous secondary material is contained as defined in Section R315-260-10. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for reclamation. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and a solid waste.

(B) The hazardous secondary material is not speculatively accumulated, as defined in Subsection R315-261-1(c)(8).

(C) Notice is provided as required by Section R315-260-42.

(D) The material is not otherwise subject to material-specific management conditions under Subsection R315-261-4(a) if reclaimed, and it is not a spent lead-acid battery, see Sections R315-266-80 and R315-273-2.

(E) Persons performing the recycling of hazardous secondary materials under this exclusion shall maintain documentation of their legitimacy determination on-site. Documentation shall be a written description of how the recycling meets the three factors in Subsection R315-260-43(a) and how the factor in Subsection R315-260-43(b) was considered. Documentation shall be maintained for three years after the recycling operation has stopped.

(F) The emergency preparedness and response requirements found in Sections R315-261-400, R315-261-410, R315-261-411, and R315-261-420 are met.

(24) Hazardous secondary material that is generated and then transferred to another person for reclamation is not a solid waste, provided:

(i) the material is not speculatively accumulated, as defined in Subsection R315-261-1(c)(8);

(ii) the material is not handled by any person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility or a reclaimer, and, while in transport, is not stored for more than 10 days at a transfer facility, as defined in Section R315-260-10, and is packaged according to applicable Department of Transportation regulations at 49 CFR parts 173, 178, and 179 while in transport;

(iii) the material is not otherwise subject to material-specific management conditions under Subsection R315-261-4(a) if reclaimed, and it is not a spent lead-acid battery, see Sections R315-266-80 and R315-273-2;

(iv) the reclamation of the material is legitimate, as specified under Section R315-260-43; and

(v) the hazardous secondary material generator satisfies the conditions in Subsections R315-261-4(a)(24)(v)(A) through R315-261-4(a)(24)(v)(F):

(A) The material shall be contained as defined in Section R315-260-10. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for recycling. Hazardous secondary material managed in a unit with leaks or other continuing releases is discarded and a solid waste.

(B) Before arranging for transport of hazardous secondary materials to a reclamation facility, or facilities, where the management of the hazardous secondary materials is not addressed under a hazardous waste part B permit or interim status standards, the hazardous secondary material generator shall make reasonable efforts to ensure that each reclaimer intends to properly and legitimately reclaim the hazardous secondary material and not discard it, and that each reclaimer will manage the hazardous secondary material in a manner that is protective of human health and the environment. If the hazardous secondary material will be passing through an intermediate facility where the management of the hazardous secondary materials is not addressed under a hazardous waste part B permit or interim status standards, the hazardous secondary material generator shall make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator, and the hazardous secondary material generator shall perform reasonable efforts to ensure that the intermediate facility will manage the hazardous secondary material in a manner that is protective of human health and the environment. Reasonable efforts shall be repeated at a minimum of each three year period for the hazardous secondary material generator to claim the exclusion and to send the hazardous secondary materials to each reclaimer and any intermediate facility. In making these reasonable efforts, the generator may use any credible evidence available, including information gathered by the hazardous secondary material generator, provided by the reclaimer or either the intermediate facility, a third party, or both. The hazardous secondary material generator shall affirmatively answer the questions in Subsections R315-261-4(a)(24)(v)(B)(I) through R315-261-4(a)(24)(v)(B)(V) for each reclamation facility and any intermediate facility:

(I) Does the available information show that the reclamation process is legitimate pursuant to Section R315-260-43? In answering this question, the hazardous secondary material generator can rely on their existing knowledge of the physical and chemical properties of the hazardous secondary material, as well as information from other sources including the reclamation facility and audit reports about the reclamation process.

(II) Does the publicly available information show that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator notified the appropriate authorities of hazardous secondary materials reclamation activities pursuant to Section R315-260-42 and have they notified the appropriate authorities that the financial assurance condition is satisfied per Subsection R315-261-4(a)(24)(vi)(F)? In answering these questions, the hazardous secondary material generator can rely on the available information documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements per Section R315-260-42, including the requirement in Subsection R315-260-42(a)(5) to notify the director whether the reclaimer or intermediate facility has financial assurance.

(III) Does publicly available information show that the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has not had any formal enforcement actions taken against the facility in the previous three years for violations of Rules R315-260 through R315-268, R315-270, and R315-273 and has not been classified as a significant non-complier with Rules R315-260 through R315-268, R315-270, and R315-273? In answering this question, the hazardous secondary material generator can rely on the publicly available information from EPA or the state. If the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has had a formal enforcement action taken against the facility in the previous three years for violations of Rules R315-260 through R315-268, R315-270, and R315-273 and has been classified as a significant non-complier with Rules R315-260 through R315-268, R315-270, and R315-273, does the hazardous secondary material generator have credible evidence that the facilities will manage the hazardous secondary materials properly? In answering this question, the hazardous secondary material generator can get additional information from EPA, the state, or the facility itself that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary materials.

(IV) Does the available information show that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material? In answering this question, the generator may rely on a description by the reclamation facility or by an independent third person of the equipment and trained personnel to be used to recycle the generator's hazardous secondary material.

(V) If residuals are generated from the reclamation of the excluded hazardous secondary materials, does the reclamation facility have the permits required, if any, to manage the residuals? If not, does the reclamation facility have a contract with an appropriately permitted facility to dispose of the residuals? If not, does the hazardous secondary material generator have credible evidence that the residuals will be managed in a manner that is protective of human health and the environment? In answering these questions, the hazardous secondary material generator can rely on publicly available information from EPA or the state, or information provided by the facility itself.

(C) The hazardous secondary material generator shall maintain for a minimum of three years documentation and certification that reasonable efforts were made for each reclamation facility and, if applicable, intermediate facility where the management of the hazardous secondary materials is not addressed under a hazardous waste part B permit or interim status standards before transferring hazardous secondary material. Documentation and certification shall be made available upon request by the director within 72 hours, or within a longer period as specified by the director. The certification statement shall:

(I) include the printed name and official title of an authorized representative of the hazardous secondary material generator company, the authorized representative's signature, and the date signed; and

(II) incorporate the following language: "I hereby certify in good faith and to the best of my knowledge that, before arranging for transport of excluded hazardous secondary materials to (insert name(s) of reclamation facility and any intermediate facility), reasonable efforts were made in accordance with Subsection R315-261-4(a)(24)(v)(B) to ensure that the hazardous secondary materials would be recycled legitimately, and otherwise managed in a manner that is protective of human health and the environment, and that such efforts were based on current and accurate information."

(D) The hazardous secondary material generator shall maintain at the generating facility for no less than three years records of each off-site shipment of hazardous secondary materials. For each shipment, these records shall, at a minimum, contain the information listed in Subsections R315-261-4(a)(24)(v)(D)(I) through R315-261-4(a)(24)(v)(D)(III):

(I) name of the transporter and date of the shipment;

(II) name and address of each reclaimer and, if applicable, the name and address of each intermediate facility that the hazardous secondary material was sent to; and

(III) the type and quantity of hazardous secondary material in the shipment.

(E) The hazardous secondary material generator shall maintain at the generating facility for no less than three years confirmations of receipt from each reclaimer and, if applicable, each intermediate facility for each off-site shipment of hazardous secondary materials. Confirmations of receipt shall include the name and address of the reclaimer, or intermediate facility, the type and quantity of the hazardous secondary materials received and the date that the hazardous secondary materials were received. This requirement may be satisfied by routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(F) The hazardous secondary material generator shall comply with the emergency preparedness and response conditions in Sections R315-261-400, R315-261-410, R315-261-411, and R315-261-420.

(vi) Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities as defined in Section R315-260-10 satisfy the conditions in Subsections R315-261-4(a)(24)(vi)(A) through R315-261-4(a)(24)(vi)(F):

(A) The reclaimer and intermediate facility shall maintain at its facility for no less than three years records of each shipment of hazardous secondary materials that were received at the facility and, if applicable, for each shipment of hazardous secondary materials that were received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records shall at a minimum contain the information required by Subsections R315-261-4(a)(24)(vi)(A)(I) through R315-261-4(a)(24)(vi)(A)(IV):

(I) name of the transporter and date of the shipment;

(II) name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility that the hazardous secondary materials were received from;

(III) the type and quantity of hazardous secondary material in the shipment; and

(IV) for hazardous secondary materials that, after being received by the reclaimer or intermediate facility, were subsequently transferred off-site for further reclamation, the name and address of the, subsequent, reclaimer and, if applicable, the name and address of each intermediate facility that the hazardous secondary material was sent to.

(B) The intermediate facility shall send the hazardous secondary material to the reclaimer, or reclaimers designated by the hazardous secondary materials generator.

(C) The reclaimer and intermediate facility shall send to the hazardous secondary material generator confirmations of receipt for each off-site shipment of hazardous secondary materials. Confirmations of receipt shall include the name and address of the reclaimer, or intermediate facility, the type and quantity of the hazardous secondary materials received and the date that the hazardous secondary materials were received. This requirement may be satisfied by routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(D) The reclaimer and intermediate facility shall manage the hazardous secondary material in a manner that is at least as protective as that used for analogous raw material and shall be contained. An "analogous raw material" is a raw material that a hazardous secondary material is a substitute for and serves the function and has similar physical and chemical properties as the hazardous secondary material.

(E) Any residuals that are generated from reclamation processes shall be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous characteristic according to Sections R315-261-20 through R315-261-24, or if they themselves are specifically listed in Sections R315-261-30 through R315-261-35, these residuals are hazardous wastes and shall be managed in accordance with the applicable requirements of Rules R315-260 through R315-266, R315-268, and R315-270.

(F) The reclaimer and intermediate facility have financial assurance as required under Sections R315-261-140 through R315-261-151.

(vii) In addition, each person claiming the exclusion under Subsection R315-261-4(a)(24) provide notification as required under Section R315-260-42.

(25) Hazardous secondary material that is exported from the United States and reclaimed at a reclamation facility located in a foreign country is not a solid waste, provided the hazardous secondary material generator complies with the applicable requirements of Subsections R315-261-4(a)(24)(i) through R315-261-4(a)(24)(v), excepting Subsection R315-261-4(a)(24)(v)(B)(2) for foreign reclaimers and foreign intermediate facilities, and that the hazardous secondary material generator also complies with the requirements in Subsections R315-261-4(a)(25)(i) through R315-261-4(a)(25)(xii):

(i) Notify EPA of an intended export before the hazardous secondary material is scheduled to leave the United States. A complete notification shall be submitted at least 60 days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a 12 month or lesser period. The notification shall be in writing, signed by the hazardous secondary material generator, and include the information required by Subsections R315-261-4(a)(25)(i)(A) through R315-261-4(a)(25)(i)(I):

(A) name, mailing address, telephone number and EPA ID number, if applicable, of the hazardous secondary material generator;

(B) a description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste and the U.S. DOT proper shipping name, hazard class and ID number, UN/NA, for each hazardous secondary material as identified in 49 CFR parts 171 through 177;

(C) the estimated frequency or rate that the hazardous secondary material is to be exported and the period that the hazardous secondary material is to be exported;

(D) the estimated total quantity of hazardous secondary material;

(E) each point of entry to and departure from each foreign country that the hazardous secondary material will pass through;

(F) a description of the means that will be used to transport each shipment of the hazardous secondary material, for example mode of transportation vehicle including air, highway, rail and water, and types of containers including drums, boxes and tanks;

(G) a description of the manner that will be used to reclaim the hazardous secondary material in the country of import;

(H) the name and address of the reclaimer, any intermediate facility and any alternate reclaimer and intermediate facilities; and

(I) the name of any countries of transit that the hazardous secondary material will be sent through and a description of the approximate length of time it will remain in these countries and the nature of its handling while there, for purposes of this section, the terms "EPA Acknowledgement of Consent", "country of import" and "country of transit" are used as defined in Section R315-262-81 with the exception that the terms in Section R315-261-4 refer to hazardous secondary materials, rather than hazardous waste.

(ii) Notifications shall be submitted electronically using EPA's Waste Import Export Tracking System, WIETS, or its successor system.

(iii) Except for changes to the telephone number in Subsection R315-261-4(a)(25)(i)(A) and decreases in the quantity of hazardous secondary material indicated pursuant to Subsection R315-261-4(a)(25)(i)(D), if the conditions specified on the original notification change, including any exceedance of the estimate of the quantity of hazardous secondary material specified in the original notification, the hazardous secondary material generator shall provide EPA with a written renotification of the change. The shipment cannot take place until consent of the country of import to the changes, except for changes to Subsection R315-261-4(a)(25)(i)(I) and in the ports of entry to and departure from countries of transit pursuant to Subsection R315-261-4(a)(25)(i)(E), has been received and the hazardous secondary material generator receives from EPA an EPA Acknowledgment of Consent reflecting the country of import's consent to the changes.

(iv) Upon request by EPA, the hazardous secondary material generator shall furnish to EPA any additional information that a country of import requests to respond to a notification.

(v) EPA will provide a complete notification to the country of import and any countries of transit. A notification is complete if EPA receives a notification that EPA determines satisfies the requirements of Subsection R315-261-4(a)(25)(i). If a claim of confidentiality is asserted with respect to any notification information required by Subsection R315-261-4(a)(25)(i), EPA may find the notification not complete until the claim is resolved in accordance with 40 CFR 260.2.

(vi) The export of hazardous secondary material under Subsection R315-261-4(a)(25) is prohibited unless the hazardous secondary material generator receives from EPA an EPA Acknowledgment of Consent documenting the consent of the country of import to the receipt of the hazardous secondary material. If the country of import objects to receipt of the hazardous secondary material or withdraws an earlier consent, EPA will notify the hazardous secondary material generator in writing. EPA will also notify the hazardous secondary material generator of any responses from countries of transit.

(vii) Before each shipment, the hazardous secondary material generator or a U.S. authorized agent shall:

(A) submit Electronic Export Information (EEI) for each shipment to the Automated Export System (AES) or its successor systems, under the International Trade Data System (ITDS) platform, in accordance with 15 CFR 30.4(b); and

(B) include the items in Subsections R315-261-4(a)(25)(vii)(B)(1) through R315-261-4(a)(25)(vii)(B)(7) in the EEI, along with the other information required under 15 CFR 30.6:

(1) EPA license code;

(2) commodity classification code per 15 CFR 30.6(a)(12);

(3) EPA consent number;

(4) country of ultimate destination per 15 CFR 30.6(a)(5);

(5) date of export per 15 CFR 30.6(a)(2); and

(6) quantity of waste in shipment and units for reported quantity, if required reporting units established by values for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6(a)(15); or

(7) EPA net quantity reported in units of kilograms, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(viii) A copy of the EPA Acknowledgment of Consent shall accompany the shipment. The shipment shall conform to the terms of the EPA Acknowledgment of Consent.

(ix) If a shipment cannot be delivered for any reason to the reclaimer, intermediate facility or the alternate reclaimer or alternate intermediate facility, the hazardous secondary material generator shall re-notify EPA of a change in the conditions of the original notification to allow shipment to a new reclaimer in accordance with Subsection R315-261-4(a)(25)(iii) and get another EPA Acknowledgment of Consent.

(x) Hazardous secondary material generators shall keep a copy of each notification of intent to export and each EPA Acknowledgment of Consent for a period of three years following receipt of the EPA Acknowledgment of Consent. They may satisfy this recordkeeping requirement by keeping electronically submitted notifications or electronically generated Acknowledgements in their account on EPA's Waste Import Export Tracking System, WIETS, or its successor system, provided copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No hazardous secondary material generator may be held liable for the inability to produce a notification or Acknowledgement for inspection under Subsection R315-261-4(a)(25) if they can demonstrate that the inability to produce copies is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System, WIETS, or its successor system that the hazardous secondary material generator bears no responsibility.

(xi) Hazardous secondary material generators shall file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency and ultimate destination of each hazardous secondary material exported during the previous calendar year. Annual reports shall be submitted electronically using EPA's Waste Import Export Tracking System, WIETS, or its successor system. These reports shall include the information listed in Subsections R315-261-4(a)(25)(xi)(A) through R315-261-4(a)(25)(xi)(E):

(A) name, mailing and site address, and EPA ID number, if applicable, of the hazardous secondary material generator;

(B) the calendar year covered by the report;

(C) the name and site address of each reclaimer and intermediate facility;

(D) by reclaimer and intermediate facility, for each hazardous secondary material exported, a description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste, the DOT hazard class, the name and U.S. EPA ID number, if applicable, for each transporter used, the consent numbers that the hazardous secondary material was shipped under and for each consent number, the total amount of hazardous secondary material shipped and the number of shipments exported during the calendar year covered by the report; and

(E) a certification signed by the hazardous secondary material generator that states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and each attached document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

(xii) Each person claiming an exclusion under Subsection R315-261-4(a)(25) shall provide notification as required by Section R315-260-42.

(26) Solvent-contaminated wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided:

(i) the solvent-contaminated wipes, if accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed if there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. If the container is full, or if the solvent-contaminated wipes are no longer being accumulated, or if the container is being transported, the container shall be sealed with the lids properly and securely affixed to the container and any openings tightly bound or closed sufficiently to prevent leaks and emissions;

(ii) the solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container before being sent for cleaning;

(iii) at the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the solvent-contaminated wipes shall contain no free liquids as defined in Section R315-260-10;

(iv) free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable rules found in Rules R315-260 through R315-266, R315-268, R315-270, and R315-273;

(v) generators shall maintain at their site the documentation listed in Subsections R315-261-4(a)(26)(iv)(A) through R315-261-4(a)(26)(iv)(C):

(A) name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes;

(B) documentation that the 180-day accumulation time limit in Subsection R315-261-4(a)(26)(ii) is being met; and

(C) description of the process the generator is using to ensure the solvent-contaminated wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning; and

(vi) the solvent-contaminated wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under sections 301 and 402 or section 307 of the Clean Water Act.

(27) Hazardous secondary material that is generated and then transferred to another person for remanufacturing is not a solid waste, provided:

(i) The hazardous secondary material consists of one or more of the following spent solvents: Toluene, xylenes, ethylbenzene, 1,2,4-trimethylbenzene, chlorobenzene, n-hexane, cyclohexane, methyl tert-butyl ether, acetonitrile, chloroform, chloromethane, dichloromethane, methyl isobutyl ketone, N,N-dimethylformamide, tetrahydrofuran, n-butyl alcohol, ethanol, or methanol.

(ii) The hazardous secondary material originated from using one or more of the solvents listed in Subsection R315-261-4(a)(27)(i) in a commercial grade for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions; in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and the paints and coatings manufacturing sectors, NAICS 325510.

(iii) The hazardous secondary material generator sends the hazardous secondary material spent solvents listed in Subsection R315-261-4(a)(27)(i) to a remanufacturer in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; or the paints and coatings manufacturing sectors, NAICS 325510.

(iv) After remanufacturing one or more of the solvents listed in Subsection R315-261-4(a)(27)(i), the use of the remanufactured solvent shall be limited to reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and the paints and coatings manufacturing sectors, NAICS 325510; or to using them as ingredients in a product. These allowed uses correspond to chemical functional uses enumerated under the Chemical Data Reporting Rule of the Toxic Substances Control Act, 40 CFR parts 704, 710-711, including Industrial Function Codes U015, solvents consumed in a reaction to produce other chemicals, and U030, solvents become part of the mixture.

(v) After remanufacturing one or more of the solvents listed in Subsection R315-261-4(a)(27)(i), the use of the remanufactured solvent does not involve cleaning or degreasing oil, grease, or similar material from textiles, glassware, metal surfaces, or other articles. These disallowed continuing uses correspond to chemical functional uses in Industrial Function Code U029 under the Chemical Data Reporting Rule of the Toxics Substances Control Act.

(vi) Both the hazardous secondary material generator and the remanufacturer shall:

(A) notify the director and update the notification each two year period per Section R315-260-42;

(B) develop and maintain an up-to-date remanufacturing plan that identifies:

(I) the name, address and EPA ID number of the generators and the remanufacturers;

(II) the types and estimated annual volumes of spent solvents to be remanufactured;

(III) the processes and industry sectors that generate the spent solvents;

(IV) the specific uses and industry sectors for the remanufactured solvents; and

(V) a certification from the remanufacturer stating, "On behalf of (insert remanufacturer facility name), I certify that this facility is a remanufacturer under pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and/or the paints and coatings manufacturing sectors, NAICS 325510; and will accept the spent solvent(s) for the sole purpose of remanufacturing into commercial-grade solvent(s) that will be used for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, or for use as product ingredient(s). I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63, or, absent such Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in Sections R315-261-1030 through R315-261-1035, R315-261-1050 through R315-261-1064 and R315-261-1080 through R315-261-1089";

(C) maintain records of shipments and confirmations of receipts for a period of three years from the dates of the shipments;

(D) before remanufacturing, store the hazardous spent solvents in tanks or containers that meet technical standards found in Sections R315-261-17 through R315-261-179 and R315-261-190 through R315-261-200, with the tanks and containers being labeled or otherwise having an immediately available record of the material being stored;

(E) during remanufacturing, and during storage of the hazardous secondary materials before remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63; or, absent any Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in Sections R315-261-1030 through R315-261-1035, R315-261-1050 through R315-261-1064 and R315-261-1080 through R315-261-1089; and

(F) meet the requirements prohibiting speculative accumulation per Subsection R315-261-1(c)(8).

(b) Solid wastes that are not hazardous wastes. The solid wastes listed in Subsections R315-261-4(b)(1) through R315-261-4(b)(18) are not hazardous wastes:

(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered such as refuse-derived fuel, or reused. "Household waste" means any material, including garbage, trash and sanitary wastes in septic tanks, derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas. A resource recovery facility managing municipal solid waste may not be considered to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if the facility:

(i) receives and burns only:

(A) household waste, from single and multiple dwellings, hotels, motels, and other residential sources; and

(B) solid waste from commercial or industrial sources that does not contain hazardous waste.

(ii) The facility does not accept hazardous wastes and the owner or operator of the facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in the facility.

(2) Solid wastes generated by any of the methods listed in Subsections R315-261-4(b)(2)(i) and R315-261-4(b)(2)(ii) and that are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

(4)(i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.

(ii) The wastes listed in Subsections R315-261-4(b)(4)(ii)(A) through R315-261-4(b)(4)(ii)(H) and generated primarily from processes that support the combustion of coal or other fossil fuels that are co-disposed with the wastes in Subsection R315-261-4(b)(4)(i), except as provided by Section R315-266-112 for facilities that burn or process hazardous waste:

(A) Coal pile run-off. For purposes of Subsection R315-261-4(b)(4), coal pile run-off means any precipitation that drains off coal piles.

(B) Boiler cleaning solutions. For purposes of Subsection R315-261-4(b)(4), boiler cleaning solutions means water solutions and chemical solutions used to clean the fire-side and water-side of the boiler.

(C) Boiler blowdown. For purposes of Subsection R315-261-4(b)(4), boiler blowdown means water purged from boilers used to generate steam.

(D) Process water treatment and demineralizer regeneration wastes. For purposes of Subsection R315-261-4(b)(4), process water treatment and demineralizer regeneration wastes means sludges, rinses, and spent resins generated from processes to remove dissolved gases, suspended solids, and dissolved chemical salts from combustion system process water.

(E) Cooling tower blowdown. For purposes of Subsection R315-261-4(b)(4), cooling tower blowdown means water purged from a closed cycle cooling system. Closed cycle cooling systems include cooling towers, cooling ponds, or spray canals.

(F) Air heater and precipitator washes. For purposes of Subsection R315-261-4(b)(4), air heater and precipitator washes means wastes from cleaning air preheaters and electrostatic precipitators.

(G) Effluents from floor and yard drains and sumps. For purposes of Subsection R315-261-4(b)(4), effluents from floor and yard drains and sumps means wastewaters, such as wash water, collected by or from floor drains, equipment drains, and sumps located inside the power plant building; and wastewaters, such as rain runoff, collected by yard drains and sumps located outside the power plant building.

(H) Wastewater treatment sludges. For purposes of Subsection R315-261-4(b)(4), wastewater treatment sludges refers to sludges generated from the treatment of wastewaters specified in Subsections R315-261-4(b)(4)(ii)(A) through R315-251-4(b)(4)(ii)(F).

(5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

(6)(i) Wastes that fail the test for the Toxicity Characteristic because chromium is present or are listed in Sections R315-261-30 through R315-261-35 due to the presence of chromium, that do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and that do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) the chromium in the waste is exclusively, or nearly exclusively, trivalent chromium; and

(B) the waste is generated from an industrial process that uses trivalent chromium exclusively, or nearly exclusively, and the process does not generate hexavalent chromium; and

(C) the waste is typically and often managed in non-oxidizing environments.

(ii) Specific wastes that meet the standard in Subsections R315-261-4(b)(6)(i)(A), R315-261-4(b)(6)(i)(B), and R315-261-4(b)(6)(i)(C), so long as they do not fail the test for the Toxicity Characteristic for any other constituent, and do not exhibit any other characteristic, are:

(A) Chrome, blue, trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(B) Chrome, blue, shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO2 pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extraction, beneficiation, and processing of ores and minerals, including coal, phosphate rock, and overburden from the mining of uranium ore, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.

(i) For purposes of Subsection R315-261-4(b)(7) beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water, carbon dioxide, or both; roasting, autoclaving, chlorination, or both in preparation for leaching, except if the roasting, or autoclaving, or chlorination or leaching, or any combination of these, sequence produces a final or intermediate product that does not undergo further beneficiation or processing; gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching.

(ii) For the purposes of Subsection R315-261-4(b)(7), solid waste from the processing of ores and minerals includes only the wastes listed in Subsections R315-261-4(b)(7)(ii)(A) through R315-261-4(b)(7)(ii)(T) as generated:

(A) slag from primary copper processing;

(B) slag from primary lead processing;

(C) red and brown muds from bauxite refining;

(D) phosphogypsum from phosphoric acid production;

(E) slag from elemental phosphorus production;

(F) gasifier ash from coal gasification;

(G) process wastewater from coal gasification;

(H) calcium sulfate wastewater treatment plant sludge from primary copper processing;

(I) slag tailings from primary copper processing;

(J) fluorogypsum from hydrofluoric acid production;

(K) process wastewater from hydrofluoric acid production;

(L) air pollution control dust or sludge from iron blast furnaces;

(M) iron blast furnace slag;

(N) treated residue from roasting or leaching of chrome ore;

(O) process wastewater from primary magnesium processing by the anhydrous process;

(P) process wastewater from phosphoric acid production;

(Q) basic oxygen furnace and open hearth furnace air pollution control dust or sludge from carbon steel production;

(R) basic oxygen furnace and open hearth furnace slag from carbon steel production;

(S) chloride process waste solids from titanium tetrachloride production; and

(T) slag from primary zinc processing.

(iii) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under Subsection R315-261-4(b) if the owner or operator:

(A) processes at least 50% by weight normal beneficiation raw materials or normal mineral processing raw materials; and

(B) legitimately reclaims the secondary mineral processing materials.

(8) Cement kiln dust waste, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.

(9) Solid waste that consists of discarded arsenical-treated wood or wood products that fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and that is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(10) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of Section R315-261-24, Hazardous Waste Codes D018 through D043 only, and are subject to the corrective action rules in 40 CFR 280 which are contained in Section R311-202-1.

(11) Injected groundwater that is hazardous only because it exhibits the Toxicity Characteristic, Hazardous Waste Codes D018 through D043 only, in Section R315-261-24 that is reinjected through an underground injection well pursuant to free phase hydrocarbon recovery operations

undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence, or that contracts have been issued for, on or before March 25, 1991. For groundwater returned through infiltration galleries from these operations at petroleum refineries, marketing terminals, and bulk plants, until October 2, 1991. New operations involving injection wells, beginning after March 25, 1991, will qualify for this compliance date extension, until January 25, 1993, only if:

(i) operations are performed pursuant to a written state agreement that includes a provision to assess the groundwater and the need for further remediation once the free phase recovery is finished; and

(ii) a copy of the written agreement has been submitted to: Waste Identification Branch (5304), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460 and the Division of Waste Management and Radiation Control, PO Box 144880, Salt Lake City, UT 84114-4880.

(12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(13) Non-terne plated used oil filters that are not mixed with wastes listed in Sections R315-261-30 through R315-261-35 if these oil filters have been gravity hot-drained using one of the methods listed in Subsections R315-261-4(b)(13)(i) through R315-261-4(b)(13)(iv):

(i) puncturing the filter anti-drain back valve or the filter dome end and hot-draining;

(ii) hot-draining and crushing;

(iii) dismantling and hot-draining; or

(iv) any other equivalent hot-draining method that will remove used oil.

(14) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

(15) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided:

(i) the solid wastes disposed would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, K172, K174, K175, K176, K177, K178 and K181 if these wastes had been generated after the effective date of the listing;

(ii) the solid wastes described in Subsection R315-261-4(b)(15)(i) were disposed before the effective date of the listing;

(iii) the leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;

(iv) discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under sections 307(b) or 402 of the Clean Water Act; and

(v) as of February 13, 2001, leachate or gas condensate derived from K169-K172 is no longer exempt if it is stored or managed in a surface impoundment before discharge. As of November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 is no longer exempt if it is stored or managed in a surface impoundment before discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment before discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation such as shutdown of wastewater treatment system, provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of Subsection R315-261-4(b)(15)(v) after the emergency ends.

(16) Reserved

(17) Reserved

(18) Solvent-contaminated wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous wastes from the point of generation provided:

(i) the solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed if there is complete contact between the fitted lid and the rim, except when it is necessary to add or remove solvent-contaminated wipes. If the container is full, or if the solvent-contaminated wipes are no longer being accumulated, or if the container is being transported, the container shall be sealed with the lids properly and securely affixed to the container and any openings tightly bound or closed sufficiently to prevent leaks and emissions;

(ii) the solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container before being sent for disposal;

(iii) at the point of being transported for disposal, the solvent-contaminated wipes shall contain no free liquids as defined in Section R315-260-10;

(iv) free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable rules found in Rules R315-260 through R315-266, R315-268, R315-270, and R315-273;

(v) Generators shall maintain at their site the documentation listed in Subsections R315-261-4(b)(18)(v)(A) through R315-261-4(b)(18)(v)(C):

(A) name and address of the landfill or combustor that is receiving the solvent-contaminated wipes;

(B) documentation that the 180-day accumulation time limit in Subsection R315-261-4(b)(18)(ii) is being met; and

(C) description of the process the generator is using to ensure solvent-contaminated wipes contain no free liquids at the point of being transported for disposal; and

(vi) the solvent-contaminated wipes are sent for disposal:

(A) to a solid waste landfill that:

(I) is regulated under Rules R315-301 through R315-320;

(II) is a Class I or V Landfill; and

(III) has a composite liner; or

(B) to a hazardous waste landfill regulated under Rules R315-260 through R315-266, R315-268, and R315-270; or

(C) to a municipal waste combustor or other combustion facility regulated under section 129 of the Clean Air Act or to a hazardous waste combustor, boiler, or industrial furnace regulated under Rule R315-264, Rule R315-265, or Sections R315-266-100 through R315-266-112.

(c) Hazardous wastes that are exempted from certain rules. A hazardous waste that is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Rules R315-262 through R315-265, R315-268, R315-270, and R315-124 or to the notification requirements of section 3010 of RCRA until it exits the unit that it was generated in, unless the unit is a surface impoundment, or

unless the hazardous waste remains in the unit more than 90 days after the unit stops being operated for manufacturing, or for storage or transportation of product or raw materials.

(d)(1) Samples. Except as provided in Subsections R315-261-4(d)(2) and R315-261-4(d)(4), a sample of solid waste or a sample of water, soil, or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of Rules R315-261 through R315-266, R315-268 or R315-270 or R315-124 or to the notification requirements of Section 3010 of RCRA, if:

(i) the sample is being transported to a laboratory for testing; or

(ii) the sample is being transported back to the sample collector after testing; or

(iii) the sample is being stored by the sample collector before transport to a laboratory for testing; or

(iv) the sample is being stored in a laboratory before testing; or

(v) the sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

(vi) the sample is being stored temporarily in the laboratory after testing for a specific purpose, for example, until conclusion of a court case or enforcement action when further testing of the sample may be necessary.

(2) To qualify for the exemption in Subsections R315-261-4(d)(1)(i) and R315-261-4(d)(1)(ii), a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector shall:

(i) comply with DOT, U.S. Postal Service (USPS), or any other applicable shipping requirements; or

(ii) comply with the requirements of Subsections R315-261-4(d)(2)(ii)(A) and R315-261-4(d)(2)(ii)(B) if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

(A) Assure that the information listed in Subsections R315-261-4(d)(2)(ii)(A)(I) through R315-261-4(d)(2)(ii)(A)(V) accompanies the sample:

(I) the sample collector's name, mailing address, and telephone number;

(II) the laboratory's name, mailing address, and telephone number;

(III) the quantity of the sample;

(IV) the date of shipment; and

(V) a description of the sample.

(B) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in Subsection R315-261-4(d)(1).

(4) To qualify for the exemption in Subsections R315-261-4(d)(1)(i) and R315-261-4(d)(1)(ii), the mass of a sample that will be exported to a foreign laboratory or that will be imported to a U.S. laboratory from a foreign source shall additionally not exceed 25 kg.

(e)(1) Treatability Study Samples. Except as provided in Subsections R315-261-4(e)(2) and R315-261-4(e)(4), persons who generate or collect samples for conducting treatability studies as defined in Section R315-260-10, are not subject to any requirement of Rules R315-261 through R315-263 or to the notification requirements of Section 3010 of RCRA, nor are the samples included in the quantity determinations of Section R315-261-5 and Subsection R315-262-34(d) if:

(i) the sample is being collected and prepared for transportation by the generator or sample collector; or

(ii) the sample is being accumulated or stored by the generator or sample collector before transportation to a laboratory or testing facility; or

(iii) the sample is being transported to the laboratory or testing facility for conducting a treatability study.

(2) The exemption in Subsection R315-261-4(e)(1) applies to samples of hazardous waste being collected and shipped for conducting treatability studies provided:

(i) the generator or sample collector uses, in treatability studies, no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and

(ii) the mass of each sample shipment does not exceed 10,000 kg; the 10,000 kg quantity may be media contaminated with non-acute hazardous waste, or may include 2500 kg of media contaminated with acute hazardous waste, 1000 kg of hazardous waste, and 1 kg of acute hazardous waste; and

(iii) the sample shall be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of Subsection R315-261-4(e)(2)(iii)(A) or R315-261-4(e)(2)(iii)(B) are met.

(A) The transportation of each sample shipment complies with DOT, USPS, or any other applicable shipping requirements; or

(B) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the information listed in Subsections R315-261-4(e)(2)(iii)(B)(I) through R315-261-4(e)(2)(iii)(B)(V) shall accompany the sample:

(I) the name, mailing address, and telephone number of the originator of the sample;

(II) the name, address, and telephone number of the facility that will perform the treatability study;

(III) the quantity of the sample;

(IV) the date of shipment; and

(V) a description of the sample, including its EPA Hazardous Waste Number.

(iv) The sample is shipped to a laboratory or testing facility that is exempt under Subsection R315-261-4(f) or has an appropriate hazardous waste permit or interim status.

(v) The generator or sample collector maintains the records listed in Subsections R315-261-4(e)(2)(v)(A) through R315-261-4(e)(2)(v)(C) for a period ending three years after completion of the treatability study:

(A) copies of the shipping documents;

(B) a copy of the contract with the facility conducting the treatability study;

(C) documentation showing:

(I) the amount of waste shipped under this exemption;

(II) the name, address, and EPA identification number of the laboratory or testing facility that received the waste;

(III) the date the shipment was made; and

(IV) whether or not unused samples and residues were returned to the generator.

(vi) The generator reports the information required under Subsection R315-261-4(e)(2)(v)(C) in its biennial report.

(3) The director may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The director may grant requests on a case-by-case basis for quantity limits in excess of those specified in Subsections R315-261-

4(e)(2)(i) and R315-261-4(e)(2)(ii) and Subsection R315-261-4(f)(4), for up to an additional 5000 kg of media contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste and 1 kg of acute hazardous waste.

(i) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing these requests include the nature of the technology; the type of process, batch versus continuous; size of the unit undergoing testing, particularly in relation to scale-up considerations; the time or quantity of material required to reach steady state operating conditions; or test design considerations such as mass balance calculations.

(ii) In response to requests for authorization to ship, store and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, if:

(A) there has been an equipment or mechanical failure during the conduct of a treatability study;

(B) there is a need to verify the results of a previously conducted treatability study;

(C) there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or

(D) there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

(iii) The additional quantities and timeframes allowed in Subsections R315-261-4(e)(3)(i) and R315-261-4(e)(3)(ii) are subject to Subsections R315-261-4(e)(1) and R315-261-4(e)(2)(iii) through R315-261-4(e)(2)(vi). The generator or sample collector shall apply to the director and provide in writing the information listed in Subsections R315-261-4(e)(3)(iii)(A) through R315-261-4(e)(3)(iii)(E):

(A) the reason why the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed;

(B) documentation accounting for any samples of hazardous waste from the waste stream that have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility that it was shipped to, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study;

(C) a description of the technical modifications or change in specifications that will be evaluated and the expected results;

(D) if further study is being required due to equipment or mechanical failure, the applicant shall include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and

(E) other information that the director considers necessary.

(4) To qualify for the exemption in Subsection R315-261-4(e)(1)(i), the mass of a sample that will be exported to a foreign laboratory or testing facility or that will be imported to a U.S. laboratory or testing facility from a foreign source shall additionally not exceed 25 kg.

(f) Samples Undergoing Treatability Studies at Laboratories and Testing Facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting the treatability studies, to the extent the facilities are not otherwise subject to RCRA requirements, are not subject to any requirement of Rules R315-261 through R315-266, R315-268, and R315-270, or to the notification requirements of Section 3010 of RCRA provided the conditions of Subsections R315-261-4(f)(1) through R315-261-4(f)(11) are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to Subsections R315-261-4(f)(1) through R315-261-4(f)(11). If a group of MTUs are located at a site, the limitations specified in Subsections R315-261-4(f)(1) through R315-261-4(f)(11) apply to the entire group of MTUs collectively as if the group were one MTU.

(1) No less than 45 days before conducting treatability studies, the facility notifies the director, in writing that it intends to conduct treatability studies under Subsection R315-261-4(f).

(2) The laboratory or testing facility conducting the treatability study has an EPA identification number.

(3) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

(4) The quantity of "as received" hazardous waste stored at the facility for evaluation in treatability studies does not exceed 10,000 kg, the total can include 10,000 kg of media contaminated with non-acute hazardous waste, 2500 kg of media contaminated with acute hazardous waste, 1000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials, including nonhazardous solid waste, added to "as received" hazardous waste.

(5) No more than 90 days have elapsed since the treatability study for the sample was finished, or no more than one year, two years for treatability studies involving bioremediation, have elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

(6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

(7) The facility maintains records for three years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The specific information listed in Subsections R315-261-4(f)(7)(i) through R315-261-4(f)(7)(vii) shall be included for each treatability study conducted:

(i) the name, address, and EPA identification number of the generator or sample collector of each waste sample;

(ii) the date the shipment was received;

(iii) the quantity of waste accepted;

(iv) the quantity of "as received" waste in storage each day;

(v) the date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

(vi) the date the treatability study was concluded; and

(vii) the date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.

(8) The facility keeps, on-site, a copy of the treatability study contract and any shipping papers associated with the transport of treatability study samples to and from the facility for a period ending three years from the completion date of each treatability study.

(9) The facility prepares and submits a report to the director, by March 15 of each year, that includes the information listed in Subsections R315-261-4(f)(9)(i) through R315-261-4(f)(9)(vii) for the previous calendar year:

(i) the name, address, and EPA identification number of the facility conducting the treatability studies;

(ii) the types, by process, of treatability studies conducted;

(iii) the names and addresses of persons for whom studies have been conducted, including their EPA identification numbers;

(iv) the total quantity of waste in storage each day;

(v) the quantity and types of waste subjected to treatability studies;

(vi) when each treatability study was conducted; and

(vii) the final disposition of residues and unused sample from each treatability study.

(10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under Section R315-261-3 and, if so, are subject to Rules R315-261 through R315-268 and R315-270, unless the residues and unused samples are returned to the sample originator under the Subsection R315-261-4(e) exemption.

(11) The facility notifies the director, by letter when the facility is no longer planning to conduct any treatability studies at the site.

(g) Dredged material that is not a hazardous waste. Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act, 33 U.S.C. 1344, or section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1413, is not a hazardous waste. For Subsection R315-261-4(g), the definitions in Subsections R315-261-4(g)(1) and R315-261-4(g)(2) apply:

(1) The term "dredged material" has the meaning as defined in 40 CFR 232.2;

(2) The term "permit" means:

(i) a permit issued by the U.S. Army Corps of Engineers (Corps) or an approved state under section 404 of the Federal Water Pollution Control Act, 33 U.S.C. 1344;

(ii) a permit issued by the Corps under section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1413; or

(iii) in the case of Corps civil works projects, the administrative equivalent of the permits referred to in Subsections R315-261-4(g)(2)(i) and R315-261-4(g)(2)(ii), as provided for in Corps regulations.

(h) Carbon dioxide stream injected for geologic sequestration. Carbon dioxide streams that are captured and transported for purposes of injection into an underground injection well subject to the requirements for Class VI Underground Injection Control wells, including the requirements in Rule R317-7, are not a hazardous waste, provided the conditions in Subsections R315-261-4(h)(1) through R315-261-4(h)(4) are met:

(1) transportation of the carbon dioxide stream shall be in compliance with U.S. Department of Transportation requirements, including the pipeline safety laws, 49 U.S.C. 60101 et seq. and regulations, 49 CFR Parts 190-199, of the U.S. Department of Transportation, and pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable;

(2) injection of the carbon dioxide stream shall be in compliance with the applicable requirements for Class VI Underground Injection Control wells, including the applicable requirements in Rule R317-7;

(3) no hazardous wastes shall be mixed with, or otherwise co-injected with, the carbon dioxide stream; and

(4)(i) Any generator of a carbon dioxide stream, who claims that a carbon dioxide stream is excluded under Subsection R315-261-4(h), shall have an authorized representative, as defined in Section R315-260-10, sign a certification statement worded as follows: "I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under Subsection R315-261-4(h) has not been mixed with hazardous wastes, and I have transported the carbon dioxide stream in compliance with, or have contracted with a pipeline operator or transporter to transport the carbon dioxide stream in compliance with, Department of Transportation requirements, including the pipeline safety laws, 49 U.S.C. 60101 et seq., and regulations, 49 CFR Parts 190-199, of the U.S. Department of Transportation, and the pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable, for injection into a well subject to the requirements for the Class VI Underground Injection Control Program of Rule R317-7."

(ii) Any Class VI Underground Injection Control well owner or operator, who claims that a carbon dioxide stream is excluded under Subsection R315-261-4(h), shall have an authorized representative, as defined in Section R315-260-10, sign a certification statement worded as follows: "I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under Subsection R315-261-4(h) has not been mixed with, or otherwise co-injected with, hazardous waste at the Underground Injection Control (UIC) Class VI permitted facility, and that injection of the carbon dioxide stream is in compliance with the applicable requirements for UIC Class VI wells, including the applicable requirements in Rule R317-7."

(iii) The signed certification statement shall be kept on-site for no less than three years, and shall be made available within 72 hours of a written request from the director. The signed certification statement shall be renewed each year that the exclusion is claimed, by having an authorized representative, as defined in Section R315-260-10, annually prepare and sign a new copy of the certification statement within one year of the date of the previous statement. The signed certification statement shall also be readily accessible on the facility's publicly available website, if the website exists, as a public notification with the title of "Carbon Dioxide Stream Certification" when the exclusion is claimed.

(i) Reserved

(j)(1) Airbag waste at the airbag waste handler or during transport to an airbag waste collection facility or designated facility is not subject to regulation under Rules R315-262 through R315-268, R315-270 or R315-124, and is not subject to the notification requirements of section 3010 of RCRA provided:

(i) the airbag waste is accumulated in a quantity of no more than 250 airbag modules or airbag inflators, for no longer than 180 days;

(ii) the airbag waste is packaged in a container designed to address the risk posed by the airbag waste and labeled "Airbag Waste -- Do Not Reuse;" and

(iii) the airbag waste is sent directly to either:

(A) an airbag waste collection facility in the United States under the control of a vehicle manufacturer or their authorized representative, or under the control of an authorized person administering a remedy program in response to a recall under the National Highway Traffic Safety Administration; or

(B) a designated facility as defined in Section R315-260-10;

(iv) the transport of the airbag waste complies with applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 during transit; and

(v) the airbag waste handler maintains at the handler facility for no less than three years records of each off-site shipment of airbag waste and each confirmation of receipt from the receiving facility. For each shipment, these records shall, at a minimum, contain the name of the transporter and date of the shipment; name and address of receiving facility; and the type and quantity of airbag waste, that is, airbag modules or airbag inflators, in the shipment. Confirmations of receipt shall include the name and address of the receiving facility; the type and quantity of the airbag waste, that is, airbag modules and airbag inflators, received; and the date that it was received. Shipping records and confirmations of receipt shall be made available for inspection and may be satisfied by routine business records such as electronic or paper financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(2) Once the airbag waste arrives at an airbag waste collection facility or designated facility, it becomes subject to applicable hazardous waste rules, and the facility receiving airbag waste is considered the hazardous waste generator for the purposes of the hazardous waste rules and shall comply with the requirements of Rule R315-262.

(3) Reuse in vehicles of defective airbag modules or defective airbag inflators subject to a recall under the National Highway Traffic Safety Administration is considered sham recycling and prohibited under Subsection R315-261-2(g).

R315-261-6. Requirements for Recyclable Materials.

(a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of Subsections R315-261-6(b) and R315-261-6(c), except for the materials listed in Subsections R315-261-6(a)(2) and R315-261-6(a)(3). Hazardous wastes that are recycled shall be known as recyclable materials.

(2) The recyclable materials listed in Subsections R315-261-6(a)(2)(i) through R315-261-6(a)(2)(iv) are not subject to the requirements of Section R315-261-6 but are regulated under Sections R315-266-20 through R315-266-23, Section R315-266-70, Section R315-266-80, Sections R315-266-100 through R315-266-112, Section R315-266-202, and Rules R315-268, R315-270, and R315-124:

(i) recyclable materials used in a manner constituting disposal, Sections R315-266-20 through R315-266-23;

(ii) hazardous wastes burned, as defined in Subsection R315-266-100(a), in boilers and industrial furnaces that are not regulated under Sections R315-264-340 through R315-264-345, R315-264-347, and R315-264-351 or R315-265-340 through R315-265-369, Sections R315-266-100 through R315-266-112;

(iii) recyclable materials that precious metals are reclaimed from, Section R315-266-70; and

(iv) spent lead-acid batteries that are being reclaimed, Section R315-266-80.

(3) The recyclable materials listed in Subsections R315-261-6(a)(3)(i) through R315-261-6(a)(3)(iv) are not subject to regulation under Rules R315-262 through R315-268, R315-270, and R315-124, and are not subject to the notification requirements of section 3010 of RCRA:

(i) industrial ethyl alcohol that is reclaimed except that exports and imports of these recyclable materials shall comply with the requirements of Sections R315-262-80 through R315-262-84;

(ii) scrap metal that is not excluded under Subsection R315-261-4(a)(13);

(iii) fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if the wastes result from normal petroleum refining, production, and transportation practices, this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, if the recovered oil is already excluded under Subsection R315-261-4(a)(12); and

(iv)(A) hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from the hazardous wastes, if the hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under Subsection R315-15-1.2(c) and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(B) hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, if the hazardous wastes are reintroduced into a refining process after a point that contaminants are removed, so long as the fuel meets the used oil fuel specification under Subsection R315-15-1.2(c); and

(C) oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under Subsection R315-15-1.2(c).

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of Rules R315-260 through R315-268, but is regulated under Rule R315-15. Used oil that is recycled includes any used oil that is reused, following its original use, for any purpose, including the purpose that the oil was originally used. This term includes oil that is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(5) Hazardous waste that is exported or imported for purpose of recovery is subject to the requirements of Sections R315-262-80 through R315-262-84.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of Rules R315-262 and R315-263 and the notification requirements under section 3010 of RCRA, except as provided in Subsection R315-261-6(a).

(c)(1) Owners and operators of facilities that store recyclable materials before they are recycled are regulated under the applicable requirements of Sections R315-264-1 through R315-264-259, R315-264-1030 through R315-264-1102, R315-265-1 through R315-265-260, R315-265-1030 through R315-265-1102 of Rules R315-264 and R315-265, and under Rules R315-266, R315-268, R315-270, and R315-124 and the notification requirements under section 3010 of RCRA, except as provided in Subsection R315-261-6(a). The recycling process itself is exempt from regulation except as provided in Subsection R315-261-6(d).

(2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the requirements of Subsections R315-261-6(c)(2)(i) through R315-261-6(c)(2)(iv), except as provided in Subsection R315-261-6(a):

(i) notification requirements under section 3010 of RCRA;

(ii) Sections R315-265-71 and R315-265-72 dealing with the use of the manifest and manifest discrepancies;

(iii) Subsection R315-261-6(d); and

(iv) Section R315-265-75, addressing biennial reporting requirements.

(d) Owners or operators of facilities subject to permitting requirements under Section 19-6-108 with hazardous waste management units that recycle hazardous wastes are subject to the requirements of Sections R315-264-1030 through R315-264-1036 and Sections R315-264-1050 through R315-264-1065, Sections R315-265-1030 through R315-265-1035, or Sections R315-265-1050 through R315-265-1064.

R315-261-7. Residues of Hazardous Waste in Empty Containers.

(a)(1) Any hazardous waste remaining in either: an empty container; or an inner liner removed from an empty container, as defined in Subsection R315-261-7(b), is not subject to regulation under Rules R315-261 through R315-266, R315-268, R315-270 or R315-124 or to the notification requirements of section 3010 of RCRA.

(2) Any hazardous waste in either a container that is not empty or an inner liner removed from a container that is not empty, as defined in Subsection R315-261-7(b), is subject to regulation under Rules R315-261 through R315-266, R315-268, R315-270, and R315-124 and to the notification requirements of section 3010 of RCRA.

(b)(1) A container or an inner liner removed from a container that has held any hazardous waste, except a waste that is a compressed gas or that is identified as an acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) is empty if:

(i) The wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container such as pouring, pumping, and aspirating, and

(ii) No more than 2.5 centimeters, one inch, of residue remain on the bottom of the container or inner liner, or

(iii)(A) No more than three percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 119 gallons in size; or

(B) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 119 gallons in size.

(2) A container that has held a hazardous waste that is a compressed gas is empty if the pressure in the container approaches atmospheric.

(3) A container or an inner liner removed from a container that has held an acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) is empty if:

(i) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

(ii) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

(iii) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

(c) Containers of hazardous waste pharmaceuticals are subject to Section R315-266-507 for determining if they are considered empty, in lieu of Section R315-261-7, except as provided by Subsections R315-266-507(c) and R315-266-507(d).

R315-261-8. PCB Wastes Regulated Under Toxic Substance Control Act.

The disposal of PCB-containing dielectric fluid and electric equipment containing such fluid authorized for use and regulated under 40 CFR 761 and that are hazardous only because they fail the test for the Toxicity Characteristic. Hazardous Waste Codes D018 through D043 only, are exempt from regulation under Rules R315-261 through 265, 268, 270 and 124, and the notification requirements of section 3010 of RCRA.

R315-261-9. Requirements for Universal Waste.

The wastes listed in Section R315-261-9 are exempt from regulation under Rules R315-262 through R315-270 except as specified in Rule R315-273 and therefore are not fully regulated as hazardous waste. The wastes listed in Section R315-261-9 are subject to regulation under Rule R315-273:

(a) batteries as described in Section R315-273-2;

(b) pesticides as described in Section R315-273-3;

(c) mercury-containing equipment as described in Section R315-273-4;

(d) lamps as described in Section R315-273-5;

(e) aerosol cans as described in Subsection R315-273-6; and

(f) antifreeze as described in Subsection R315-273-7.

R315-261-10. Criteria for Identifying the Characteristics of Hazardous Waste.

(a) The Board shall identify and define a characteristic of hazardous waste in Sections R315-261-20 through 24 only upon determining that:

(1) A solid waste that exhibits the characteristic may:

(i) Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

(ii) Pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed; and

(2) The characteristic can be:

(i) Measured by an available standardized test method which is reasonably within the capability of generators of solid waste or private sector laboratories that are available to serve generators of solid waste; or

(ii) Reasonably detected by generators of solid waste through their knowledge of their waste.

R315-261-11. Criteria for Listing Hazardous Waste.

(a) The Board shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the criteria in Subsections R315-261-11(a)(1) through R315-261-11(a)(3):

(1) It exhibits any of the characteristics of hazardous waste identified in Sections R315-261-20 through R315-261-24.

(2) It has been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity, rat, of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity, rat, of less than 2 milligrams per liter, or a dermal LD 50 toxicity, rabbit, of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness. Waste listed in accordance with these criteria shall be designated Acute Hazardous Waste.

(3) It contains any of the toxic constituents listed in Rule R315-261 appendix VIII, Section R315-261-1092, and, after considering the factors listed in Subsections R315-261-11(a)(3)(i) through R315-261-11(a)(3)(xi), the Board concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment if improperly treated, stored, transported or disposed of, or otherwise managed:

(i) The nature of the toxicity presented by the constituent.

(ii) The concentration of the constituent in the waste.

(iii) The potential of the constituent or any toxic degradation product of the constituent to migrate from the waste into the environment under the types of improper management considered in Subsection R315-261-11(a)(3)(vii).

(iv) The persistence of the constituent or any toxic degradation product of the constituent.

(v) The potential for the constituent or any toxic degradation product of the constituent to degrade into non-harmful constituents and the rate of degradation.

(vi) The degree to which the constituent or any degradation product of the constituent bioaccumulates in ecosystems.

(vii) The plausible types of improper management that the waste could be subjected to.

(viii) The quantities of the waste generated at individual generation sites or on a regional or national basis.

(ix) The nature and severity of the human health and environmental damage that has occurred as a result of the improper management of wastes containing the constituent.

(x) Action taken by other governmental agencies or regulatory programs based on the health or environmental hazard posed by the waste or waste constituent.

(xi) Other factors as may be appropriate. Substances shall be listed on appendix VIII, Section R315-261-1092, of Rule R315-261 only if they have been shown in scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms. Wastes listed in accordance with these criteria shall be designated Toxic wastes.

(b) The Board may list classes or types of solid waste as hazardous waste if it has reason to believe that individual wastes, within the class or type of waste, typically or often are hazardous under the definition of hazardous waste found in Section 19-6-102.

R315-261-20. Characteristics of Hazardous Waste - General.

(a) A solid waste, as defined in Section R315-261-2, which is not excluded from regulation as a hazardous waste under Subsection R315-261-4(b), is a hazardous waste if it exhibits any of the characteristics identified in Sections R315-261-20 through 24.

(b) A hazardous waste which is identified by a characteristic in Sections R315-261-20 through 24 is assigned every EPA Hazardous Waste Number that is applicable as set forth in Sections R315-261-20 through 24. This number shall be used in complying with the notification requirements of section 3010 of RCRA and all applicable recordkeeping and reporting requirements under Rules R315-262 through 265, 268 and 270.

(c) For purposes of Sections R315-261-20 through 24, the Board shall consider a sample obtained using any of the applicable sampling methods specified in appendix I of Rule R315-261 to be a representative sample within the meaning of Rule R315-260.

R315-261-21. Characteristics of Hazardous Waste - Characteristic of Ignitability.

(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the properties listed in Subsections R315-261-21(a)(1) through R315-261-21(a)(4):

(1) It is a liquid, other than a solution containing less than 24% alcohol by volume and at least 50% water by weight, that has a flash point less than 60 degrees C, that is140 degrees F, as determined by using one of the following ASTM Standards: ASTM D 93-79, D 93-80, ASTM D 3278-78, D8174-18, or D8175-18 as specified in SW-846 Test Methods 1010B or 1020C, which are incorporated by reference, see Section R315-260-11.

(2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, if ignited, burns so vigorously and persistently that it creates a hazard.

(3) It is an ignitable compressed gas.

(i) The term "compressed gas" shall designate any material or mixture having in the container an absolute pressure exceeding 40 p.s.i. at 70 degrees Fahrenheit or, regardless of the pressure at 70 degrees Fahrenheit, having an absolute pressure exceeding 104 p.s.i. at 130 degrees Fahrenheit, or any liquid flammable material having a vapor pressure exceeding 40 p.s.i. absolute at 100 degrees Fahrenheit as determined by ASTM Test D-323.

(ii) A compressed gas shall be characterized as ignitable if any one of the conditions listed in Subsection R315-261-21(a)(3)(ii)(A) or R315-261-21(a)(3)(ii)(B) occurs:

(A) Either a mixture of 13% or less, by volume, with air forms a flammable mixture or the flammable range with air is wider than 12% regardless of the lower limit. These limits shall be determined at atmospheric temperature and pressure. The method of sampling and test procedure shall be the ASTM E681-85, incorporated by reference, see Section R315-260-11, or other equivalent methods approved by the Associate Administrator, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation.

(B) It is determined to be flammable or extremely flammable using 49 CFR 173.115(l).

(4) It is an oxidizer. An oxidizer for Section R315-261-21 is a substance such as a chlorate, permanganate, inorganic peroxide, or a nitrate, that yields oxygen readily to stimulate the combustion of organic matter.

(i) An organic compound containing the bivalent -O-O- structure and that may be considered a derivative of hydrogen peroxide where one or more of the hydrogen atoms have been replaced by organic radicals shall be classed as an organic peroxide unless:

(A) the material meets the definition of a Division 1.1, 1.2, or 1.3 explosive, as defined in Subsection R315-261-23(a)(8), in which case it shall be classed as an explosive;

(B) the material is forbidden to be offered for transportation according to 49 CFR 172.101 and 49 CFR 173.21;

(C) it is determined that the predominant hazard of the material containing an organic peroxide is other than that of an organic peroxide; or

(D) according to data on file with the Pipeline and Hazardous Materials Safety Administration in the U.S. Department of Transportation, it has been determined that the material does not present a hazard in transportation.

(b) A solid waste that exhibits the characteristic of ignitability has the EPA Hazardous Waste Number of D001.

R315-261-22. Characteristics of Hazardous Waste - Characteristic of Corrosivity.

(a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

(1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, see Section R315-260-11 which incorporates 40 CFR 260.11 by reference.

(2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55 degrees C (130 degrees F) as determined by Method 1110A in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, see Section R315-260-11 which incorporates 40 CFR 260.11 by reference.

(b) A solid waste that exhibits the characteristic of corrosivity has the EPA Hazardous Waste Number of D002.

R315-261-23. Characteristics of Hazardous Waste - Characteristic of Reactivity.

(a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

(1) It is normally unstable and readily undergoes violent change without detonating.

(2) It reacts violently with water.

(3) It forms potentially explosive mixtures with water.

(4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

(6) It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
(7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
(8) It is a forbidden explosive as defined in 49 CFR 173.54, or is a Division 1.1, 1.2 or 1.3 explosive as defined in 49 CFR 173.50 and 173.53.
(b) A solid waste that exhibits the characteristic of reactivity has the EPA Hazardous Waste Number of D003.

R315-261-24. Characteristics of Hazardous Waste - Toxicity Characteristic.

(a) A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, see Section R315-260-11, the extract from a representative sample of the waste contains any of the contaminants listed in Table 1 at the concentration equal to or greater than the respective value given in that Table 1. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Method 1311, is considered to be the extract for the purpose of Section R315-261-24.

(b) A solid waste that exhibits the characteristic of toxicity has the EPA Hazardous Waste Number specified in Table 1 which corresponds to the toxic contaminant causing it to be hazardous.

TABLE 1
Maximum Concentration of Contaminants for the
Toxicity Characteristic

PA HW(1)	Contaminant	CAS(2)	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2	5.0
D005	Barium	7440-39-3	100.0
D018	Benzene	71-43-2	0.5
D006	Cadmium	7440-43-9	1.0
D019	Carbon tetrachloride	56-23-5	0.5
D020	Chlordane	57-74-9	0.03
D021	Chlorobenzene	108-90-7	100.0
D022	Chloroform	67-66-3	6.0
D007	Chromium	7440-47-3	5.0
D023	o-Cresol	95-48-7	200.0(4)
D024	m-Cresol	108-39-4	200.0(4)
D025	p-Cresol	106-44-5	200.0(4)
D026	Cresol		200.0(4)
D016	2,4-D	94-75-7	10.0
D027	1,4-Dichlorobenzene	106-46-7	7.5
D028	1,2-Dichloroethane	107-06-2	0.5
D029	1,1-Dichloroethylene	75-35-4	0.7
D030	2,4-Dinitrotoluene	121-14-2	0.13(3)
D012	Endrin	72-20-8	0.02
D031	Heptachlor (and its epoxide)	76-44-8	0.008
D032	Hexachlorobenzene	118-74-1	0.13(3)
D033	Hexachlorobutadiene	87-68-3	0.5
D034	Hexachloroethane	67-72-1	3.0
D008	Lead	7439-92-1	5.0
D013	Lindane	58-89-9	0.4
D009	Mercury	7439-97-6	0.2
D014	Methoxychlor	72-43-5	10.0
D035	Methyl ethyl ketone	78-93-3	200.0
D036	Nitrobenzene	98-95-3	2.0
D037	Pentrachlorophenol	87-86-5	100.0
D038	Pyridine	110-86-1	5.0(3)
D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloroethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloroethylene	79-01-6	0.5
D04	2,4,5-Trichlorophenol	95-95-4	400.0
D042	2,4,6-Trichlorophenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

(1) Hazardous waste number.
(2) Chemical abstracts service number.
(3) Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

(4) If o-, m-, and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200 mg/l.

R315-261-30. Lists of Hazardous Wastes - General.

(a) A solid waste is a hazardous waste if it is listed in Sections R315-261-30 through R315-261-35, unless it has been excluded from this list under Sections R315-260-20 and R315-261-22.

(b) The Board shall show the basis for listing the classes or types of wastes listed in Sections R315-261-30 through R315-261-35 by using one or more of the Hazard Codes listed in Subsections R315-261-30(b)(1) through R315-261-30(b)(6):

(1) Ignitable Waste: (I)
(2) Corrosive Waste: (C)
(3) Reactive Waste: (R)
(4) Toxicity Characteristic Waste: (E)
(5) Acute Hazardous Waste: (H)
(6) Toxic Waste: (T)

Appendix VII identifies the constituent that caused the Board to list the waste as a Toxicity Characteristic Waste or Toxic Waste in Sections R315-261-31 and R315-261-32.

(c) Each hazardous waste listed in Sections R315-261-30 through R315-261-35 is assigned an EPA Hazardous Waste Number that precedes the name of the waste. This number shall be used in complying with the notification requirements of Section 3010 of the RCRA and certain recordkeeping and reporting requirements under Rules R315-262 through R315-265, R315-268, and R315-270.

(d) The following hazardous wastes listed in Section R315-261-31 are subject to the generator category limits for acutely hazardous wastes established in Table 1 of Section R315-262-13: EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026 and F027.

R315-261-31. Lists of Hazardous Wastes - Hazardous Wastes from Non-Specific Sources.

(a) The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under Sections R315-260-20 and R315-260-22 and listed in Section R315-261-1093, which incorporates 40 CFR 261 appendix IX by reference.

TABLE 2
Hazardous Waste From Non-specific Sources

Industry and EPA hazardous waste No. Generic:	Hazardous Waste	Hazard Code
F001	The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; any spent solvent mixtures or blends used in degreasing containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F002	The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; any spent solvent mixtures or blends containing, before use, a total of 10% or more, by volume, of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F003	The following spent non-	(I)*

	halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; any spent solvent mixtures or blends containing, before use, only the above spent non-halogenated solvents; and any spent solvent mixtures or blends containing, before use, one or more of the above non-halogenated solvents, and, a total of 10% or more, by volume, of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	
F004	The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene; any spent solvent mixtures or blends containing, before use, a total of 10% or more, by volume, of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(T)
F005	The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; any spent solvent mixtures or blends containing, before use, a total of 10% or more, by volume, of one or more of the above non- halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures	(I,T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating, segregated basis, on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning or stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum	(T)
F007	Spent cyanide plating bath solutions from electroplating operations	(R,T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process	(R,T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process	(R,T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used	(R,T)

	in the process	
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations	(R,T)
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when the phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land before shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in Sections R315-258-40, R315-264-301 or 40 CFR 265.301, which is incorporated by reference. For this listing, motor vehicle manufacturing is defined in Subsection R315-261-31(b)(4)(i) and Subsection R315-261-31(b)(4)(ii) describes the recordkeeping requirements for motor vehicle manufacturing facilities	(T)
F020	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use; as a reactant, chemical intermediate, or component in a formulating process, of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol	(H)
F021	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production or manufacturing use; as a reactant, chemical intermediate, or component in a formulating process, of pentachlorophenol, or of intermediates used to produce its derivatives	(H)
F022	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the manufacturing use; as a reactant, chemical intermediate, or component in a formulating process; of tetra-, penta-, or hexachlorobenzenes under	(H)

	alkaline conditions	
F023	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the production or manufacturing use; as a reactant, chemical intermediate, or component in a formulating process; of tri- and tetrachlorophenols. This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol	(H)
F024	Process wastes, including distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in Section R315-261-31 or R315-261-32	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution	(T)
F026	Wastes, except wastewater and spent carbon from hydrogen chloride purification, from the production of materials on equipment previously used for the manufacturing use, as a reactant, chemical intermediate, or component in a formulating process, of tetra-, penta-, or hexachlorobenzene under alkaline conditions	(H)
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027	(T)
F032	Wastewaters, except those that have	(T)

	not come into contact with process contaminants, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations, except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with Section R315-261-35 or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes, that is, F034 or F035, and where the generator does not resume or initiate use of chlorophenolic formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both	
F034	Wastewaters, except those that have not come into contact with process contaminants, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both	(T)
F035	Wastewaters, except those that have not come into contact with process contaminants, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote or pentachlorophenol, or both	(T)
F037	Petroleum refinery primary oil or water or solids separation sludge- Any sludge generated from the gravitational separation of oil or water or solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. These sludges include those generated in oil or water or solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily	(T)

	cooling waters, sludges generated in aggressive biological treatment units as defined in Subsection R315-261-31(b)(2), including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units, and K051 wastes are not included in this listing. This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under Subsection R315-261-4(a)(12)(i), if those residuals are to be disposed of	
F038	Petroleum refinery secondary, emulsified, oil or water or solids separation sludge-Any sludge or float, or both generated from the physical or chemical separation, or both of oil or water or solids in process wastewaters and oily cooling wastewaters from petroleum refineries. These wastes include, any sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and any sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in Subsection R315-261-31(b)(2), including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing	(T)
F039	Leachate, liquids that have percolated through land disposed wastes, resulting from the disposal of more than one restricted waste classified as hazardous under Sections R316-261-30 through R315-261-35. Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes keeps its EPA Hazardous Waste Number or Numbers: F020, F021, F022, F026, F027, and F028	(T)
F999	Residues from demilitarization, treatment, and testing of nerve, military, and chemical agents CX, GA, GB, GD, H, HD, HL, HN-1, HN-2, HN-3, HT, L, T, and VX	(R, T, C, H)
*(I,T) should be used to specify mixtures that are ignitable and contain toxic constituents.		

(b) Listing Specific Definitions.

(1) For the F037 and F038 listings, oil or water or solids is defined as any combination of oil, water, or solids.

(2)(i) For the F037 and F038 listings, aggressive biological treatment units are defined as units that use one of the following four treatment methods: activated sludge; trickling filter; rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-

rate aeration. High-rate aeration is a system of surface impoundments or tanks, in which intense mechanical aeration is used to completely mix the wastes, enhance biological activity; and

(A) the units use a minimum of 6 hp per million gallons of treatment volume; and either

(B) the hydraulic retention time of the unit is no longer than 5 days; or

(C) the hydraulic retention time is no longer than 30 days and the unit does not generate a sludge that is a hazardous waste by the Toxicity Characteristic.

(ii) Generators and treatment, storage and disposal facilities have the burden of proving that their sludges are exempt from listing as F037 and F038 wastes under this definition. Generators and treatment, storage and disposal facilities shall maintain, in their operating or other onsite records, documents and data sufficient to prove that:

(A) the unit is an aggressive biological treatment unit as defined in this subsection; and

(B) the sludges sought to be exempted from the definitions of F037 and F038, or both were actually generated in the aggressive biological treatment unit.

(3)(i) For the F037 listing, sludges are considered to be generated at the moment of deposition in the unit, if deposition is defined as at least a temporary cessation of lateral particle movement.

(ii) For the F038 listing:

(A) sludges are considered to be generated at the moment of deposition in the unit, if deposition is defined as at least a temporary cessation of lateral particle movement; and

(B) floats are considered to be generated at the moment they are formed in the top of the unit.

(4) For the F019 listing, the following apply to wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process.

(i) Motor vehicle manufacturing is defined to include the manufacture of automobiles and light trucks or utility vehicles, including light duty vans, pickup trucks, minivans, and sport utility vehicles. Facilities shall be engaged in manufacturing complete vehicles, body and chassis or unibody, or chassis only.

(ii) Generators shall maintain in their on-site records documentation and information sufficient to prove that the wastewater treatment sludges to be exempted from the F019 listing meet the conditions of the listing. These records shall include: the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. Generators shall maintain these documents on site for no less than three years. The retention period for the documentation is automatically extended during any enforcement action or as requested by the director.

R315-261-32. Lists of Hazardous Wastes - Hazardous Wastes from Specific Sources.

(a) The solid wastes listed in R315-261-32 are listed hazardous wastes from specific sources unless they are excluded under Sections R315-260-20 and R315-260-22 and listed in R315-261-1093 which incorporates 40 CFR 261.32 Appendix IX by reference.

TABLE 1

Industry and EPA hazardous waste No.	Hazardous waste	Hazard Code
	Wood preservation:	
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and pentachlorophenol or both	(T)
	Inorganic pigments:	
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments, anhydrous and hydrated	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments	(T)
K008	Oven residue from the production of chrome oxide green pigments	(T)
	Organic chemicals:	
K009	Distillation bottoms from the production of acetaldehyde from ethylene	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene	(T)

K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	(R,T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	(R,T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	(T)
K015	Still bottoms from the distillation of benzyl chloride	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	(T)
K017	Heavy ends, still bottoms, from the purification column in the production of epichlorohydrin	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	(T)
K022	Distillation bottom tars from the production of phenol or acetone from cumene	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	(T)
K026	Stripping still tails from the production of methy ethyl pyridines	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production	(R,T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	(T)
K083	Distillation bottoms from aniline production	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-	(T)

	trichloroethane	
K103	Process residues from aniline extraction from the production of aniline	(T)
K104	Combined wastewater streams generated from nitrobenzene or aniline production	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(I,T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from arboxylic acid hydrazides	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethane	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethane	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethane	(T)
K149	Distillation bottoms from the production of alpha-, or methyl-, chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, This waste does not	(T)

	include still bottoms from the distillation of benzyl chloride	
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha-, or methyl-, chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha-, or methyl-, chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	(T)
K156	Organic waste, including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate	(T)
K157	Wastewaters, including scrubber waters, condenser waters, washwaters, and separation waters, from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate	(T)
K158	Bag house dusts and filter or separation solids from the production of carbamates and carbamoyl oximes. This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate	(T)
K159	Organics from the treatment of thiocarbamate wastes	(T)
K161	Purification solids; including filtration, evaporation, and centrifugation solids; bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. This listing does not include K125 or K126	(R,T)
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer, including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater, unless the sludges meet the following conditions: (i) they are disposed of in a subtitle C or non-hazardous landfill licensed or permitted by the state or federal government; (ii) they are not otherwise placed on the land prior to final disposal; and (iii) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that	(T)

	provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of subtitle C shall, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth in this listing. In doing so, they shall provide appropriate documentation, for example, contracts between the generator and the landfill owner or operator or both, invoices documenting delivery of waste to landfill, that the terms of the exclusion were met	
K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	(T)
K181	Nonwastewaters from the production of dyes and pigments or both, including nonwastewaters commingled at the point of generation with nonwastewaters from other processes, that, at the point of generation, contain mass loadings of any of the constituents identified in Subsection R315-261-32(c) that are equal to or greater than the corresponding Subsection R315-261-32(c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) disposed in a Class I or V lined landfill; (ii) disposed in a hazardous waste landfill unit subject to either Section R315-264-301 or 40 CFR 265.301, which is adopted by reference; (iii) disposed in other landfill units that are Class I or V lined landfills regulated under Rules R315-301 through R315-320 or meet the design criteria in Section R315-264-301, or 40 CFR 265.301, which is adopted by reference; or (iv) treated in a combustion unit that is permitted under Rules R315-260 through R315-270, or an onsite combustion unit that is permitted under the Clean Air Act. For this listing, the production of dyes and pigments is defined in Subsection R315-261-32(b)(1). Subsection R315-261-32(d) describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under Sections R315-261-21 through R315-261-24 and R315-261-31 through R315-261-33 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met	(T)
Inorganic chemicals:		

K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	(T)
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates, for example, antimony metal or crude antimony oxide	(E)
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates, for example, antimony metal or crude antimony oxide	(T)
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process	(T)
Pesticides:		
K031	By-product salts generated in the production of MSMA and cacodylic acid	(T)
K032	Wastewater treatment sludge from the production of chlordane	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	(T)
K035	Wastewater treatment sludges generated in the production of creosote	(T)
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	(T)
K037	Wastewater treatment sludges from the production of disulfoton	(T)
K038	Wastewater from the washing and stripping of phorate production	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	(T)
K040	Wastewater treatment sludge from the production of phorate	(T)
K041	Wastewater treatment sludge from the production of toxaphene	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	(T)
K098	Untreated process wastewater from the production of toxaphene	(T)
K099	Untreated wastewater from the production of 2,4-D	(T)

K123	Process wastewater, including supernates, filtrates, and washwaters, from the production of ethylenebisdithiocarbamic acid and its salt	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts	(C,T)
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts	(T)
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide	(C,T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide	(T)
Explosives:		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	(R)
K045	Spent carbon from the treatment of wastewater containing explosives	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	(T)
K047	Pink or red water from TNT operations	(R)
Petroleum refining:		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	(T)
K049	Slop oil emulsion solids from the petroleum refining industry	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry	(T)
K051	API separator sludge from the petroleum refining industry	(T)
K052	Tank bottoms, leaded, from the petroleum refining industry	(T)
K169	Crude oil storage tank sediment from petroleum refining operations	(T)
K170	Clarified slurry oil tank sediment and in-line filter or separation solids, or both, from petroleum refining operations	(T)
K171	Spent Hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors, this listing does not include inert support media	(I,T)
K172	Spent Hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors, this listing does not include inert support media	(I,T)
Iron and steel:		
K061	Emission control dust or sludge from the primary production of steel in	(T)

	electric furnaces	
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry, SIC Codes 331 and 332	(C,T)
	Primary aluminum:	
K088	Spent potliners from primary aluminum reduction	(T)
	Secondary lead:	
K069	Emission control dust or sludge from secondary lead smelting. Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register	(T)
K100	Waste leaching solution from acid leaching of emission control dust or sludge from secondary lead smelting	(T)
	Veterinary pharmaceuticals:	
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds	(T)
	Ink formulation:	
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead	(T)
	Coking:	
K060	Ammonia still lime sludge from coking operations	(T)
K087	Decanter tank tar sludge from coking operations	(T)
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087, decanter tank tar sludges from coking operations	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal	(T)
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal	(T)

K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal	(T)
K147	Tar storage tank residues from coal tar refining	(T)
K148	Residues from coal tar distillation, including but not limited to, still bottoms	(T)

(b) Listing of Specific Definitions:

(1) For the K181 listing, dyes and pigments production is defined to include manufacture of the following product classes: dyes, pigments, or FDA certified colors that are classified as azo, triarylmethane, perylene or anthraquinone classes. Azo products include azo, monoazo, diazo, triazo, polyazo, azoic, benzidine, and pyrazolone products. Triarylmethane products include both triarylmethane and triphenylmethane products. Wastes that are not generated at a dyes and pigments, or both, manufacturing site, such as wastes from the offsite use, formulation, and packaging of dyes and pigments, or both, are not included in the K181 listing.

(c) K181 Listing Levels. Nonwastewaters containing constituents in amounts equal to or exceeding the following levels during any calendar year are subject to the K181 listing, unless the conditions in the K181 listing are met.

TABLE 2		
Constituent	Chemical abstracts No.	Mass levels(kg/yr)
Aniline	62-53-3	9,300
o-Anisidine	90-04-0	110
4-Chloroaniline	106-47-8	4,800
p-Cresidine	120-71-8	660
2,4-Dimethylaniline	95-68-1	100
1,2-Phenylenediamine	95-54-5	710
1,3-Phenylenediamine	108-45-2	1,200

(d) Procedures for demonstrating that dyes and pigment, or both, nonwastewaters are not K181. The procedures described in Subsections R315-261-32(d)(1) through R315-261-32(d)(3) and R315-261-32(d)(5) establish when nonwastewaters from the production of dyes or pigments would not be hazardous, these procedures apply to wastes that are not disposed in landfill units or treated in combustion units as specified in Subsection R315-261-32(a). If the nonwastewaters are disposed in landfill units or treated in combustion units as described in Subsection R315-261-32(a), then the nonwastewaters are not hazardous. In order to demonstrate that it is meeting the landfill disposal or combustion conditions contained in the K181 listing description, the generator shall maintain documentation as described in Subsection R315-261-32(d)(4).

(1) Determination based on no K181 constituents. Generators that have knowledge; for example, knowledge of constituents in wastes based on prior sampling and analysis data and information about raw materials used, or both, production processes used, and reaction and degradation products formed; that their wastes contain none of the K181 constituents, see Subsection R315-261-32(c), can use their knowledge to determine that their waste is not K181. The generator shall document the basis for each determination on an annual basis and keep each annual documentation for three years.

(2) Determination for generated quantities of 1,000 MT/yr or less for wastes that contain K181 constituents. If the total annual quantity of dyes and pigment, or both, nonwastewaters generated is 1,000 metric tons or less, the generator can use knowledge of the wastes; for example, knowledge of constituents in wastes based on prior analytical data and information or both about raw materials used, production processes used, and reaction and degradation products formed; to conclude that annual mass loadings for the K181 constituents are below the listing levels of Subsection R315-261-32(c). To make this determination, the generator shall:

(i) Each year document the basis for determining that the annual quantity of nonwastewaters expected to be generated will be less than 1,000 metric tons.

(ii) Track the actual quantity of nonwastewaters generated from January 1 through December 31 of each year. If, at any time within the year, the actual waste quantity exceeds 1,000 metric tons, the generator shall comply with the requirements of Subsection R315-261-32(d)(3) for the remainder of the year.

(iii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

(iv) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:

(A) The quantity of dyes and pigment, or both, nonwastewaters generated.

(B) The relevant process information used.

(C) The calculations performed to determine annual total mass loadings for each K181 constituent in the nonwastewaters during the year.

(3) Determination for generated quantities greater than 1,000 MT/yr for wastes that contain K181 constituents. If the total annual quantity of dyes and pigment, or both, nonwastewaters generated is greater than 1,000 metric tons, the generator shall perform each of the steps described in Subsections R315-261-32(d)(3)(i) through R315-261-32(d)(3)(xi) in order to make a determination that its waste is not K181.

(i) Determine which K181 constituents, see Subsection R315-261-32(c), are reasonably expected to be present in the wastes based on knowledge of the wastes; for example, based on prior sampling and analysis data and information or both about raw materials used, production processes used, and reaction and degradation products formed.

(ii) If 1,2-phenylenediamine is present in the wastes, the generator can use either knowledge or sampling and analysis procedures to determine the level of this constituent in the wastes. For determinations based on use of knowledge, the generator shall comply with the procedures for using knowledge described in Subsection R315-261-32(d)(2) and keep the records described in Subsection R315-261-32(d)(2)(iv). For determinations based on sampling and analysis, the generator shall comply with the sampling and analysis and recordkeeping requirements described in Subsections R315-261-32(d)(3)(iii) through R315-261-32(d)(3)(xi).

(iii) Develop a waste sampling and analysis plan, or modify an existing plan, to collect and analyze representative waste samples for the K181 constituents reasonably expected to be present in the wastes. At a minimum, the plan shall include:

(A) A discussion of the number of samples needed to characterize the wastes fully;

(B) The planned sample collection method to obtain representative waste samples;

(C) A discussion of how the sampling plan accounts for potential temporal and spatial variability of the wastes; and

(D) A detailed description of the test methods to be used, including sample preparation, clean up, if necessary, and determinative methods.

(iv) Collect and analyze samples in accordance with the waste sampling and analysis plan.

(A) The sampling and analysis shall be unbiased, precise, and representative of the wastes.

(B) The analytical measurements shall be sufficiently sensitive, accurate and precise to support any claim that the constituent mass loadings are below the listing levels of Subsection R315-261-32(c).

(v) Record the analytical results.

(vi) Record the waste quantity represented by the sampling and analysis results.

(vii) Calculate constituent-specific mass loadings, product of concentrations and waste quantity.

(viii) Keep a running total of the K181 constituent mass loadings over the course of the calendar year.

(ix) Determine whether the mass of any of the K181 constituents listed in Subsection R315-261-32(c) generated between January 1 and December 31 of any year is below the K181 listing levels.

(x) Keep the following records on site for the three most recent calendar years in which the hazardous waste determinations are made:

(A) The sampling and analysis plan.

(B) The sampling and analysis results, including QA/QC data.

(C) The quantity of dyes and pigment, or both, nonwastewaters generated.

(D) The calculations performed to determine annual mass loadings.

(xi) Nonhazardous waste determinations shall be conducted annually to verify that the wastes remain nonhazardous.

(A) The annual testing requirements are suspended after three consecutive successful annual demonstrations that the wastes are nonhazardous. The generator can then use knowledge of the wastes to support subsequent annual determinations.

(B) The annual testing requirements are reinstated if the manufacturing or waste treatment processes generating the wastes are significantly altered, resulting in an increase of the potential for the wastes to exceed the listing levels.

(C) If the annual testing requirements are suspended, the generator shall keep records of the process knowledge information used to support a nonhazardous determination. If testing is reinstated, a description of the process change shall be retained.

(4) Recordkeeping for the landfill disposal and combustion exemptions. To meet the landfill disposal and combustion condition set out in the K181 listing description, the generator shall maintain on site for three years documentation demonstrating that each shipment of waste was received by a landfill unit that is subject to or meets the landfill design standards set out in the listing description, or was treated in combustion units as specified in the listing description.

(5) Waste holding and handling. During the interim period, from the point of generation to completion of the hazardous waste determination, the generator is responsible for storing the wastes appropriately. If the wastes are determined to be hazardous and the generator has not complied with the hazardous waste requirements during the interim period, the generator could be subject to an enforcement action for improper management.

R315-261-33. Lists of Hazardous Wastes - Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof.

The following materials or items are hazardous wastes if they are discarded or intended to be discarded as described in Subsection R315-261-2(a)(2)(i), if they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, if they are otherwise applied to the land in lieu of their original intended use or if they are contained in products that are applied to the land in lieu of their original intended use, or if, in lieu of their original intended use, they are produced for use as, or a component of, a fuel, distributed for use as a fuel, or burned as a fuel.

(a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in Subsections R315-261-33(e) or R315-261-33(f).

(b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in Subsections R315-261-33(e) or R315-261-33(f).

(c) Any residue remaining in a container or in an inner liner removed from a container that has held any commercial chemical product or manufacturing chemical intermediate having the generic name listed in Subsections R315-261-33(e) or R315-261-33(f), unless the container is empty as defined in Subsection R315-261-7(b) or Section R315-266-507. Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed; or being accumulated, stored, transported or treated before use, re-use, recycling or reclamation, the director considers the residue to be intended for discard, and thus, a hazardous waste. An example of a legitimate re-use of the residue would be where the residue remains in the container and the container is used to hold the commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.

(d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in Subsections R315-261-33(e) or R315-261-33(f), or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in Subsections R315-261-33(e) or R315-251-33(f). The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in..." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of

the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and each formulation in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in Subsections R315-261-33(e) or R315-261-33(f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in Subsections R315-261-33(e) or R315-261-33(f), the waste shall be listed in either Sections R315-261-31 or R315-261-32 or shall be identified as a hazardous waste by the characteristics set forth in Sections R315-261-20 through R315-261-24.

(e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in Subsections R315-261-33(a) through R315-261-33(d), are identified as acute hazardous wastes (H). For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number. These wastes and their corresponding EPA Hazardous Waste Numbers are:

TABLE 1

Hazardous waste No.	Chemical abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P203	1646-88-4	Aldicarb sulfone.
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H3 AsO4
P012	1327-53-3	Arsenic oxide As2 O3
P011	1303-28-2	Arsenic oxide As2 O5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl-
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-(1-hydroxy-2-(methylamino)ethyl)-, (R)-
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P014	108-98-5	Benzenethiol
P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-,methylcarbamate.
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo(2,3-b)indol-5-ylmethylcarbamate ester (1:1).
P001	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, if present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium powder
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-

		((methylamino)carbonyl) oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN)2
P189	55285-14-8	Carbamic acid, ((dibutylamino)-thio)methyl-, 2,3-dihydro-2,2-dimethyl- 7-benzofuranyl ester.
P191	644-64-4	Carbamic acid, dimethyl-, 1-((dimethyl-amino)carbonyl)-5-methyl-1H- pyrazol-3-yl ester.
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H- pyrazol-5-yl ester.
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester.
P127	1563-66-2	Carbofuran.
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P189	55285-14-8	Carbosulfan.
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide Cu(CN)
P202	64-00-6	m-Cumenyl methylcarbamate.
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha, 4alpha, 4abeta, 5alpha,8alpha,8abeta)-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8ahexahydro-, (1alpha, 4alpha, 4abeta, 5beta, 8beta,8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2aalpha, 3beta, 6beta, 6aalpha,7beta, 7aalpha)-
P051	(1)72-20-8	2,7:3,6-Dimethanonaphth (2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2abeta, 3alpha, 6alpha, 6abeta, 7beta, 7aalpha)-, and metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P191	644-64-4	Dimetilan.
P047	(1)534-52-1	4,6-Dinitro-o-cresol, and salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton

P049	541-53-7	Dithiobiuret
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O- ((methylamino)-carbonyl)oxime.
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, and metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-(((methylamino) carbonyl)oxy)-2-oxo-, methyl ester.
P066	16752-77-5	Ethanimidothioic acid, N-(((methylamino)carbonyl)oxy)-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethyleneimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P198	23422-53-9	Formetanate hydrochloride.
P197	17702-57-7	Formparanate.
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P192	119-38-0	Isolan.
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate.
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,
P196	15339-36-3	Manganese dimethyldithiocarbamate.
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis(chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-(3-(((methylamino)-carbonyl)oxy)phenyl)-, monohydrochloride.
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-(2-methyl-4-(((methylamino)carbonyl)oxy)phenyl)-
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10- hexachloro-
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-
P199	2032-65-7	Methiocarb.
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyllactonitrile
P071	298-00-0	Methyl parathion
P190	1129-41-5	Metolcarb.
P128	315-8-4	Mexacarbate.
P072	86-88-4	alpha-Naphthylthiourea

P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl Ni(CO)4, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN)2
P075	(1)54-11-5	Nicotine, and salts, this listing does not include patches, gums and lozenges that are FDA approved over-the-counter nicotine replacement therapies
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO2
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid
P194	23135-22-0	Oxamyl.
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	(1)534-52-1	Phenol, 2-methyl-4,6-dinitro-, and salts
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P128	315-18-4	315-18-4 Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester).
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate.
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate.
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-(2- (ethylthio)ethyl) ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-((ethylthio)methyl) ester
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-(2- (methylamino)-2-oxoethyl) ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-(4-((dimethylamino)sulfonyl)phenyl) O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P204	57-47-6	Physostigmine.
P188	57-64-7	Physostigmine salicylate.

P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Potassium silver cyanide
P201	2631-37-0	Promecarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-((methylamino)carbonyl)oxime
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-((methylamino)carbonyl) oxime.
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	(1)54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, and salts, this listing does not include patches, gums and lozenges that are FDA approved over-the-counter nicotine replacement therapies
P204	57-47-6	Pyrrolo(2,3-b)indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS-cis)-.
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	(1)57-24-9	Strychnidin-10-one, and salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	(1)57-24-9	Strychnine, and salts
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl2 O3
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Thallium(I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide ((H2N)C(S))2 NH
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P185	26419-73-8	Tirpate.
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V2 O5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-

P001	(1)81-81-2	Warfarin, and salts, if present at concentrations greater than 0.3%
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-,
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN)2
P122	1314-84-7	Zinc phosphide Zn3 P2, if present at concentrations greater than 10% (R,T)
P205	137-30-4	Ziram.
P001	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, if present at concentrations greater than 0.3%
P001	(1)81-81-2	Warfarin, and salts, if present at concentrations greater than 0.3%
P002	591-08-2	Acetamide, N-(aminothioxomethyl)-
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P003	107-02-8	2-Propenal
P004	309-00-2	Aldrin
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8a,-hexahydro-, (1alpha, 4alpha, 4abeta, 5alpha,8alpha,8abeta)-
P005	107-18-6	Allyl alcohol
P005	107-18-6	2-Propen-1-ol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P007	2763-96-4	3(2H)-Isoxazolone, 5-(aminomethyl)-
P008	504-24-5	4-Aminopyridine
P008	504-24-5	4-Pyridinamine
P009	131-74-8	Ammonium picrate (R)
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P010	7778-39-4	Arsenic acid H3 AsO4
P011	1303-28-2	Arsenic oxide As2 O5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic oxide As2 O3
P012	1327-53-3	Arsenic trioxide
P013	542-62-1	Barium cyanide
P014	108-98-5	Benzenethiol
P014	108-98-5	Thiophenol
P015	7440-41-7	Beryllium powder
P016	542-88-1	Dichloromethyl ether
P016	542-88-1	Methane, oxybis(chloro-
P017	598-31-2	Bromoacetone
P017	598-31-2	2-Propanone, 1-bromo-
P018	357-57-3	Brucine
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P020	88-85-7	Dinoseb
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide Ca(CN)2
P022	75-15-0	Carbon disulfide
P023	107-20-0	Acetaldehyde, chloro-
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	Benzenamine, 4-chloro-
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P027	542-76-7	3-Chloropropionitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P028	100-44-7	Benzene, (chloromethyl)-
P028	100-44-7	Benzyl chloride
P029	544-92-3	Copper cyanide

P029	544-92-3	Copper cyanide Cu(CN)
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P031	460-19-5	Ethanedinitrile
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride (CN)Cl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P036	696-28-6	Arsonous dichloride, phenyl-
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P037	60-57-1	2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2aalpha, 3beta, 6beta, 6aalpha,7beta, 7aalpha)-
P038	692-42-2	Arsine, diethyl-
P038	692-42-2	Diethylarsine
P039	298-04-4	Disulfoton
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-(2- (ethylthio)ethyl) ester
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P042	51-43-4	1,2-Benzenediol, 4-(1-hydroxy-2-(methylamino)ethyl)-, (R)-
P042	51-43-4	Epinephrine
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl) ester
P044	60-51-5	Dimethoate
P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-(2- (methylamino)-2-oxoethyl) ester
P045	39196-18-4	2-Butanone, 3,3-dimethyl-1-(methylthio)-, O-((methylamino)carbonyl) oxime
P045	39196-18-4	Thiofanox
P046	122-09-8	Benzeneethanamine, alpha,alpha-dimethyl-
P046	122-09-8	alpha,alpha-Dimethylphenethylamine
P047	(1)534-52-1	4,6-Dinitro-o-cresol, and salts
P047	(1)534-52-1	Phenol, 2-methyl-4,6-dinitro-, and salts
P048	51-28-5	2,4-Dinitrophenol
P048	51-28-5	Phenol, 2,4-dinitro-
P049	541-53-7	Dithiobiuret
P049	541-53-7	Thioimidodicarbonic diamide ((H2N)C(S))2 NH
P050	115-29-7	Endosulfan
P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10- hexachloro-
P051	(1)72-20-8	2,7:3,6-Dimethanonaphth (2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2abeta, 3alpha, 6alpha, 6abeta, 7beta, 7aalpha)-, and metabolites
P051	72-20-8	Endrin
P051	72-20-8	Endrin, and metabolites
P054	151-56-4	Aziridine
P054	151-56-4	Ethyleneimine
P056	7782-41-4	Fluorine

P057	640-19-7	Acetamide, 2-fluoro-
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P058	62-74-8	Fluoroacetic acid, sodium salt
P059	76-44-8	Heptachlor
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro- 3a,4,7,7a-tetrahydro-
P060	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexa- chloro-1,4,4a,5,8,8ahexahydro-, (1alpha, 4alpha, 4abeta, 5beta, 8beta,8abeta)-
P060	465-73-6	Isodrin
P062	757-58-4	Hexaethyl tetraphosphate
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P064	624-83-9	Methane, isocyanato-
P064	624-83-9	Methyl isocyanate
P065	628-86-4	Fulminic acid, mercury(2+) salt (R,T)
P065	628-86-4	Mercury fulminate (R,T)
P066	16752-77-5	Ethanimidothioic acid, N-(((methylamino)carbonyl)oxy)-, methyl ester
P066	16752-77-5	Methomyl
P067	75-55-8	Aziridine, 2-methyl-
P067	75-55-8	1,2-Propylenimine
P068	60-34-4	Hydrazine, methyl-
P068	60-34-4	Methyl hydrazine
P069	75-86-5	2-Methyllactonitrile
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P070	116-06-3	Aldicarb
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-((methylamino)carbonyl)oxime
P071	298-00-0	Methyl parathion
P071	298-00-0	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester
P072	86-88-4	alpha-Naphthylthiourea
P072	86-88-4	Thiourea, 1-naphthalenyl-
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl Ni(CO)4, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide Ni(CN)2
P075	(1)54-11-5	Nicotine, and salts, this listing does not include patches, gums and lozenges that are FDA approved over-the-counter nicotine replacement therapies
P075	(1)54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, and salts, this listing does not include patches, gums and lozenges that are FDA approved over-the-counter nicotine replacement therapies
P076	10102-43-9	Nitric oxide
P076	10102-43-9	Nitrogen oxide NO
P077	100-01-6	Benzenamine, 4-nitro-
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P078	10102-44-0	Nitrogen oxide NO2
P081	55-63-0	Nitroglycerine (R)
P081	55-63-0	1,2,3-Propanetriol, trinitrate (R)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P085	152-16-9	Diphosphoramide, octamethyl-
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO4, (T-4)-

P087	20816-12-0	Osmium tetroxide
P088	145-73-3	Endothall
P088	145-73-3	7-Oxabicyclo(2.2.1)heptane-2,3-dicarboxylic acid
P089	56-38-2	Parathion
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P092	62-38-4	Mercury, (acetato-O)phenyl-
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P093	103-85-5	Thiourea, phenyl-
P094	298-02-2	Phorate
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-((ethylthio)methyl) ester
P095	75-44-5	Carbonic dichloride
P095	75-44-5	Phosgene
P096	7803-51-2	Hydrogen phosphide
P096	7803-51-2	Phosphine
P097	52-85-7	Famphur
P097	52-85-7	Phosphorothioic acid, O-(4-((dimethylamino)sulfonyl)phenyl) O,O-dimethyl ester
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide K(CN)
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P099	506-61-6	Potassium silver cyanide
P101	107-12-0	Ethyl cyanide
P101	107-12-0	Propanenitrile
P102	107-19-7	Propargyl alcohol
P102	107-19-7	2-Propyn-1-ol
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide Ag(CN)
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide Na(CN)
P108	(1)57-24-9	Strychnidin-10-one, and salts
P108	(1)57-24-9	Strychnine, and salts
P109	3689-24-5	Tetraethyldithiopyrophosphate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P110	78-00-2	Plumbane, tetraethyl-
P110	78-00-2	Tetraethyl lead
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P111	107-49-3	Tetraethyl pyrophosphate
P112	509-14-8	Methane, tetranitro- (R)
P112	509-14-8	Tetranitromethane (R)
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl2 O3
P114	12039-52-0	Selenious acid, dithallium(1+) salt
P114	12039-52-0	Thallium(I) selenite
P115	7446-18-6	Sulfuric acid, dithallium(1+) salt
P115	7446-18-6	Thallium(I) sulfate
P116	79-19-6	Hydrazinecarbothioamide
P116	79-19-6	Thiosemicarbazide
P118	75-70-7	Methanethiol, trichloro-
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Ammonium vanadate
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V2 O5
P120	1314-62-1	Vanadium pentoxide
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide Zn(CN)2
P122	1314-84-7	Zinc phosphide Zn3 P2, if present at concentrations greater than 10% (R,T)
P123	8001-35-2	Toxaphene

P127	1563-66-2	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-,methylcarbamate.
P127	1563-66-2	Carbofuran.
P128	315-8-4	Mexacarbate.
P128	315-18-4	315-18-4 Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester).
P185	26419-73-8	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O- ((methylamino)-carbonyl)oxime.
P185	26419-73-8	Tirpate.
P188	57-64-7	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethylpyrrolo(2,3-b)indol-5-ylmethylcarbamate ester (1:1).
P188	57-64-7	Physostigmine salicylate.
P189	55285-14-8	Carbamic acid, ((dibutylamino)-thio)methyl-, 2,3-dihydro-2,2-dimethyl- 7-benzofuranyl ester.
P189	55285-14-8	Carbosulfan.
P190	1129-41-5	Carbamic acid, methyl-, 3-methylphenyl ester.
P190	1129-41-5	Metolcarb.
P191	644-64-4	Carbamic acid, dimethyl-, 1-((dimethyl-amino)carbonyl)-5-methyl-1H- pyrazol-3-yl ester.
P191	644-64-4	Dimetilan.
P192	119-38-0	Carbamic acid, dimethyl-, 3-methyl-1-(1-methylethyl)-1H- pyrazol-5-yl ester.
P192	119-38-0	Isolan.
P194	23135-22-0	Ethanimidothioic acid, 2-(dimethylamino)-N-(((methylamino) carbonyl)oxy)-2-oxo-, methyl ester.
P194	23135-22-0	Oxamyl.
P196	15339-36-3	Manganese, bis(dimethylcarbamodithioato-S,S')-,
P196	15339-36-3	Manganese dimethyldithiocarbamate.
P197	17702-57-7	Formparanate.
P197	17702-57-7	Methanimidamide, N,N-dimethyl-N'-(2-methyl-4-(((methylamino)carbonyl)oxy)phenyl)-
P198	23422-53-9	Formetanate hydrochloride.
P198	23422-53-9	Methanimidamide, N,N-dimethyl-N'-(3-(((methylamino)-carbonyl)oxy)phenyl)-, monohydrochloride.
P199	2032-65-7	Methiocarb.
P199	2032-65-7	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate
P201	2631-37-0	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate.
P201	2631-37-0	Promecarb
P202	64-00-6	m-Cumenyl methylcarbamate.
P202	64-00-6	3-Isopropylphenyl N-methylcarbamate.
P202	64-00-6	Phenol, 3-(1-methylethyl)-, methyl carbamate.
P203	1646-88-4	Aldicarb sulfone.
P203	1646-88-4	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-((methylamino)carbonyl) oxime.
P204	57-47-6	Physostigmine.
P204	57-47-6	Pyrrolo(2,3-b)indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester),

		(3aS-cis)-.
P205	137-30-4	Zinc, bis(dimethylcarbamodithioato-S,S')-,
P205	137-30-4	Ziram.
P999		Nerve, Military, and Chemical Agents' that is, CX, GA, GB, GD, H, HD, HL, HN-1, HN-2, HN-3, HT, L, T, and VX.
Note (1) CAS Number given for parent compound only.		

(f) The commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in Subsections R315-261-33(a) through R315-261-33(d), are identified as toxic wastes (T), unless otherwise designated. For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity. Wastes are first listed in alphabetical order by substance and then listed again in numerical order by Hazardous Waste Number. These wastes and their corresponding EPA Hazardous Waste Numbers are:

TABLE 2

Hazardous waste No.	Chemical abstracts No.	Substance
U394	30558-43-1	A2213.
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	(1)94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U112	141-78-6	Acetic acid ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2 +) salt
U214	563-68-8	Acetic acid, thallium(1 +) salt
see F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino(2′,3′:3,4)pyrrolo(1,2-a)indole-4,7-dione, 6-amino-8-(((aminocarbonyl)oxy)methyl)-1,1a,2,8,8a,8b-hexahydro-8a- methoxy-5-methyl-, (1aS-(1aalpha, 8beta,8aalpha,8balpha))-
U280	101-27-9	Barban.
U278	22781-23-3	Bendiocarb.
U364	22961-82-6	Bendiocarb phenol.
U271	17804-35-2	Benomyl.
U157	56-49-5	Benz(j)aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz(c)acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz(a)anthracene

U094	57-97-6	Benz(a)anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4′-carbonimidoylbis(N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4′-methylenebis(2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-(bis(2-chloroethyl)amino)-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1′-(2,2-dichloroethylidene)bis(4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis(4-chloro-
U247	72-43-5	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis(4- methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.
U364	22961-82-	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,

	6	
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-9	Benzo(rst)pentaphene
U248	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, and salts, if present at concentrations of 0.3% or less
U022	50-32-8	Benzo(a)pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2′-Bioxirane
U021	92-87-5	(1,1′-Biphenyl)-4,4′-diamine
U073	91-94-1	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dichloro-
U091	119-90-4	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dimethoxy-
U095	119-93-7	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-((2,3-dihydroxy- 2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl)-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, (1S-(1alpha(Z),7(2S*,3R*),7aalpha))-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.
U271	17804-35-2	Carbamic acid, (1-((butylamino)carbonyl)-1H-benzimidazol-2-yl)-, methyl ester.
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester.
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester.
U409	23564-05-8	Carbamic acid, (1,2-phenylenebis (iminocarbonothioyl))bis-, dimethyl ester.
U097	79-44-7	Carbamic chloride, dimethyl-
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester.
U114	(1)111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U279	63-25-2	Carbaryl.

U372	10605-21-7	Carbendazim.
U367	1563-38-8	Carbofuran phenol.
U215	6533-73-9	Carbonic acid, dithallium(1 +) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H_2CrO_4, calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha, 5alpha, 6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	(1)94-75-7	2,4-D, salts & esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz(a,h)anthracene
U064	189-55-9	Dibenzo(a,i)pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3′-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U108	123-91-1	1,4-Diethyleneoxide

U028	117-81-7	Diethylhexyl phthalate
U395	5952-26-1	Diethylene glycol, dicarbamate.
U086	1615-80-1	N,N′-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3′-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz(a)anthracene
U095	119-93-7	3,3′-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U404	121-44-8	Ethanamine, N,N-diethyl-
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1′-(methylenebis(oxy))bis(2-chloro-
U117	60-29-7	Ethane, 1,1′-oxybis-(I)
U025	111-44-4	Ethane, 1,1′-oxybis(2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N'-(thiobis((methylimino)carbonyloxy))bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester.
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2′-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2′-oxybis-, dicarbamate.
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)

U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether (I)
U114	(1)111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro-(I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-(((methylnitrosoamino)-carbonyl)amino)-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N′-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H_2S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl- (R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno(1,2,3-cd)pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpine
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury

U152	126-98-7	Methacrylonitrile (I, T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I, T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I, T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methyl chloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4′-Methylenebis(2-chloroaniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-((3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy)-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthalenamine, N,N′-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3′-((3,3′-dimethyl(1,1′-biphenyl)-4,4′-diyl)bis(azo)bis(5-amino-4-hydroxy)-, tetrasodium salt
U279	63-25-2	1-Naphthalenol, methylcarbamate.
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1 +) salt

U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4′-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2′-methylenebis(3,4,6-trichloro-
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-(bis(2-chloroethyl)amino)-
U145	7446-27-7	Phosphoric acid, lead(2 +) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2′-oxybis(2-chloro-
U193	1120-71-4	1,3-Propane sultone

See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham.
U411	114-26-1	Propoxur.
U387	52888-80-9	Prosulfocarb.
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-(bis(2-chloroethyl)amino)-
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS_2 (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	thallium chloride TlCl
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb.
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide $((H_2N)C(S))_2 S_2$, tetramethyl-
U409	23564-05-8	Thiophanate-methyl.
U219	62-56-6	Thiourea

U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate.
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine.
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	(1)81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-((3,4,5-trimethoxybenzoyl) oxy)-, methyl ester, (3beta,16beta, 17alpha,18beta, 20alpha)-
U249	1314-84-7	Zinc phosphide $Zn_3 P_2$, when present at concentrations of 10% or less
U001	75-07-0	Acetaldehyde (I)
U001	75-07-0	Ethanal (I)
U002	67-64-1	Acetone (I)
U002	67-64-1	2-Propanone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U004	98-86-2	Ethanone, 1-phenyl-
U005	53-96-3	Acetamide, -9H-fluoren-2-yl-
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U007	79-06-1	2-Propenamide
U008	79-10-7	Acrylic acid (I)
U008	79-10-7	2-Propenoic acid (I)
U009	107-13-1	Acrylonitrile
U009	107-13-1	2-Propenenitrile
U010	50-07-7	Azirino(2',3':3,4)pyrrolo(1,2-a)indole-4,7-dione, 6-amino-8-(((aminocarbonyl) oxy)methyl)-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, (1aS-(1aalpha, 8beta, 8aalpha,8balpha))-
U010	50-07-7	Mitomycin C
U011	61-82-5	Amitrole
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U012	62-53-3	Aniline (I,T)
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Auramine
U014	492-80-8	Benzenamine, 4,4′-carbonimidoylbis(N,N-dimethyl-

U015	115-02-6	Azaserine
U015	115-02-6	L-Serine, diazoacetate (ester)
U016	225-51-4	Benz(c)acridine
U017	98-87-3	Benzal chloride
U017	98-87-3	Benzene, (dichloromethyl)-
U018	56-55-3	Benz(a)anthracene
U019	71-43-2	Benzene (I,T)
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U021	92-87-5	Benzidine
U021	92-87-5	(1,1′-Biphenyl)-4,4′-diamine
U022	50-32-8	Benzo(a)pyrene
U023	98-07-7	Benzene, (trichloromethyl)-
U023	98-07-7	Benzotrichloride (C,R,T)
U024	111-91-1	Dichloromethoxy ethane
U024	111-91-1	Ethane, 1,1′-(methylenebis(oxy))bis(2-chloro-
U025	111-44-4	Dichloroethyl ether
U025	111-44-4	Ethane, 1,1′-oxybis(2-chloro-
U026	494-03-1	Chlornaphazin
U026	494-03-1	Naphthalenamine, N,N′-bis(2-chloroethyl)-
U027	108-60-1	Dichloroisopropyl ether
U027	108-60-1	Propane, 2,2′-oxybis(2-chloro-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U028	117-81-7	Diethylhexyl phthalate
U029	74-83-9	Methane, bromo-
U029	74-83-9	Methyl bromide
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U030	101-55-3	4-Bromophenyl phenyl ether
U031	71-36-3	1-Butanol (I)
U031	71-36-3	n-Butyl alcohol (I)
U032	13765-19-0	Calcium chromate
U032	13765-19-0	Chromic acid H_2CrO_4, calcium salt
U033	353-50-4	Carbonic difluoride
U033	353-50-4	Carbon oxyfluoride (R,T)
U034	75-87-6	Acetaldehyde, trichloro-
U034	75-87-6	Chloral
U035	305-03-3	Benzenebutanoic acid, 4-(bis(2-chloroethyl)amino)-
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U037	108-90-7	Benzene, chloro-
U037	108-90-7	Chlorobenzene
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U041	106-89-8	Epichlorohydrin
U041	106-89-8	Oxirane, (chloromethyl)-
U042	110-75-8	2-Chloroethyl vinyl ether
U042	110-75-8	Ethene, (2-chloroethoxy)-
U043	75-01-4	Ethene, chloro-
U043	75-01-4	Vinyl chloride
U044	67-66-3	Chloroform
U044	67-66-3	Methane, trichloro-
U045	74-87-3	Methane, chloro- (I,T)
U045	74-87-3	Methyl chloride (I,T)

U046	107-30-2	Chloromethyl methyl ether
U046	107-30-2	Methane, chloromethoxy-
U047	91-58-7	beta-Chloronaphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U048	95-57-8	o-Chlorophenol
U048	95-57-8	Phenol, 2-chloro-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U052	1319-77-3	Phenol, methyl-
U053	4170-30-3	2-Butenal
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Benzene, (1-methylethyl)-(I)
U055	98-82-8	Cumene (I)
U056	110-82-7	Benzene, hexahydro-(I)
U056	110-82-7	Cyclohexane (I)
U057	108-94-1	Cyclohexanone (I)
U058	50-18-0	Cyclophosphamide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U059	20830-81-3	Daunomycin
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-((3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy)-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U060	72-54-8	Benzene, 1,1′-(2,2-dichloroethylidene)bis(4-chloro-
U060	72-54-8	DDD
U061	50-29-3	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis(4-chloro-
U061	50-29-3	DDT
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-di chloro-2-propenyl) ester
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz(a,h)anthracene
U064	189-55-9	Benzo(rst)pentaphene
U064	189-55-9	Dibenzo(a,i)pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U067	106-93-4	Ethane, 1,2-dibromo-
U067	106-93-4	Ethylene dibromide
U068	74-95-3	Methane, dibromo-
U068	74-95-3	Methylene bromide
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	Benzene, 1,2-dichloro-
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	Benzene, 1,3-dichloro-
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	Benzene, 1,4-dichloro-
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dichloro-
U073	91-94-1	3,3′-Dichlorobenzidine
U074	764-41-0	2-Butene, 1,4-dichloro-(I,T)
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U075	75-71-8	Methane, dichlorodifluoro-

U076	75-34-3	Ethane, 1,1-dichloro-
U076	75-34-3	Ethylidene dichloride
U077	107-06-2	Ethane, 1,2-dichloro-
U077	107-06-2	Ethylene dichloride
U078	75-35-4	1,1-Dichloroethylene
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	1,2-Dichloroethylene
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U080	75-09-2	Methane, dichloro-
U080	75-09-2	Methylene chloride
U081	120-83-2	2,4-Dichlorophenol
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	2,6-Dichlorophenol
U082	87-65-0	Phenol, 2,6-dichloro-
U083	78-87-5	Propane, 1,2-dichloro-
U083	78-87-5	Propylene dichloride
U084	542-75-6	1,3-Dichloropropene
U084	542-75-6	1-Propene, 1,3-dichloro-
U085	1464-53-5	2,2′-Bioxirane
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U086	1615-80-1	N,N′-Diethylhydrazine
U086	1615-80-1	Hydrazine, 1,2-diethyl-
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U089	56-53-1	Phenol, 4,4′-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U090	94-58-6	Dihydrosafrole
U091	119-90-4	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dimethoxy-
U091	119-90-4	3,3′-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U092	124-40-3	Methanamine, -methyl-(I)
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	Benz(a)anthracene, 7,12-dimethyl-
U094	57-97-6	7,12-Dimethylbenz(a)anthracene
U095	119-93-7	(1,1′-Biphenyl)-4,4′-diamine, 3,3′-dimethyl-
U095	119-93-7	3,3′-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenylethyl-(R)
U097	79-44-7	Carbamic chloride, dimethyl-
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	1,2-Dimethylhydrazine
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U101	105-67-9	2,4-Dimethylphenol
U101	105-67-9	Phenol, 2,4-dimethyl-
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U103	77-78-1	Sulfuric acid, dimethyl ester
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U105	121-14-2	2,4-Dinitrotoluene

U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Diethyleneoxide
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U110	142-84-7	Dipropylamine (I)
U110	142-84-7	1-Propanamine, N-propyl-(I)
U111	621-64-7	Di-n-propylnitrosamine
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U112	141-78-6	Acetic acid ethyl ester (I)
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U114	(1)111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters
U114	(1)111-54-6	Ethylenebisdithiocarbamic acid, salts & esters
U115	75-21-8	Ethylene oxide (I,T)
U115	75-21-8	Oxirane (I,T)
U116	96-45-7	Ethylenethiourea
U116	96-45-7	2-Imidazolidinethione
U117	60-29-7	Ethane, 1,1′-oxybis-(I)
U117	60-29-7	Ethyl ether (I)
U118	97-63-2	Ethyl methacrylate
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U119	62-50-0	Ethyl methanesulfonate
U119	62-50-0	Methanesulfonic acid, ethyl ester
U120	206-44-0	Fluoranthene
U121	75-69-4	Methane, trichlorofluoro-
U121	75-69-4	Trichloromonofluoromethane
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U124	110-00-9	Furfuran (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U125	98-01-1	Furfural (I)
U126	765-34-4	Glycidylaldehyde
U126	765-34-4	Oxiranecarboxyaldehyde
U127	118-74-1	Benzene, hexachloro-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U128	87-68-3	Hexachlorobutadiene
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U129	58-89-9	Lindane
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Ethane, hexachloro-
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U132	70-30-4	Phenol, 2,2′-methylenebis(3,4,6-trichloro-
U133	302-01-2	Hydrazine (R,T)
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H_2S
U136	75-60-5	Arsinic acid, dimethyl-

U136	75-60-5	Cacodylic acid
U137	193-39-5	Indeno(1,2,3-cd)pyrene
U138	74-88-4	Methane, iodo-
U138	74-88-4	Methyl iodide
U140	78-83-1	Isobutyl alcohol (I,T)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta(cd)pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-((2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy)methyl)-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, (1S-(1alpha(Z),7(2S*,3R*), 7aalpha))-
U143	303-34-4	Lasiocarpine
U144	301-04-2	Acetic acid, lead(2 +) salt
U144	301-04-2	Lead acetate
U145	7446-27-7	Lead phosphate
U145	7446-27-7	Phosphoric acid, lead(2 +) salt (2:3)
U146	1335-32-6	Lead, bis(acetato-O)tetrahydroxytri-
U146	1335-32-6	Lead subacetate
U147	108-31-6	2,5-Furandione
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U149	109-77-3	Malononitrile
U149	109-77-3	Propanedinitrile
U150	148-82-3	Melphalan
U150	148-82-3	L-Phenylalanine, 4-(bis(2-chloroethyl)amino)-
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U153	74-93-1	Methanethiol (I,T)
U153	74-93-1	Thiomethanol (I,T)
U154	67-56-1	Methanol (I)
U154	67-56-1	Methyl alcohol (I)
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N′-2-pyridinyl-N′-(2-thienylmethyl)-
U155	91-80-5	Methapyrilene
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U157	56-49-5	Benz(j)aceanthrylene, 1,2-dihydro-3-methyl-
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	Benzenamine, 4,4′-methylenebis(2-chloro-
U158	101-14-4	4,4′-Methylenebis(2-chloroaniline)
U159	78-93-3	2-Butanone (I,T)
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U161	108-10-1	Methyl isobutyl ketone (I)
U161	108-10-1	4-Methyl-2-pentanone (I)
U161	108-10-1	Pentanol, 4-methyl-
U162	80-62-6	Methyl methacrylate (I,T)
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U163	70-25-7	Guanidine, -methyl-N'-nitro-N-nitroso-

U163	70-25-7	MNNG
U164	56-04-2	Methylthiouracil
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U165	91-20-3	Naphthalene
U166	130-15-4	1,4-Naphthalenedione
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	1-Naphthalenamine
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	2-Naphthalenamine
U168	91-59-8	beta-Naphthylamine
U169	98-95-3	Benzene, nitro-
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U170	100-02-7	Phenol, 4-nitro-
U171	79-46-9	2-Nitropropane (I,T)
U171	79-46-9	Propane, 2-nitro- (I,T)
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	Ethanol, 2,2′-(nitrosoimino)bis-
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	Ethanamine, -ethyl-N-nitroso-
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	N-Nitroso-N-methylurea
U177	684-93-5	Urea, N-methyl-N-nitroso-
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U179	100-75-4	Piperidine, 1-nitroso-
U180	930-55-2	N-Nitrosopyrrolidine
U180	930-55-2	Pyrrolidine, 1-nitroso-
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U181	99-55-8	5-Nitro-o-toluidine
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U182	123-63-7	Paraldehyde
U183	608-93-5	Benzene, pentachloro-
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Ethane, pentachloro-
U184	76-01-7	Pentachloroethane
U185	82-68-8	Benzene, pentachloronitro-
U185	82-68-8	Pentachloronitrobenzene (PCNB)
U186	504-60-9	1-Methylbutadiene (I)
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Acetamide, -(4-ethoxyphenyl)-
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U189	1314-80-3	Phosphorus sulfide (R)
U189	1314-80-3	Sulfur phosphide (R)
U190	85-44-9	1,3-Isobenzofurandione
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U191	109-06-8	Pyridine, 2-methyl-
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U192	23950-58-5	Pronamide
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U193	1120-71-4	1,3-Propane sultone
U194	107-10-8	1-Propanamine (I,T)
U194	107-10-8	n-Propylamine (I,T)
U196	110-86-1	Pyridine
U197	106-51-4	p-Benzoquinone

U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U200	50-55-5	Reserpine
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-((3,4,5-trimethoxybenzoyl)oxy)-, methyl ester,(3beta,16beta,17alpha,18beta,20alpha)-
U201	108-46-3	1,3-Benzenediol
U201	108-46-3	Resorcinol
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS_2 (R,T)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-(((methylnitrosoamino)-carbonyl)amino)-
U206	18883-66-4	Streptozotocin
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Ethene, tetrachloro-
U210	127-18-4	Tetrachloroethylene
U211	56-23-5	Carbon tetrachloride
U211	56-23-5	Methane, tetrachloro-
U213	109-99-9	Furan, tetrahydro-(I)
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Acetic acid, thallium(1 +) salt
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Carbonic acid, dithallium(1 +) salt
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Nitric acid, thallium(1 +) salt
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Ethanethioamide
U218	62-55-5	Thioacetamide
U219	62-56-6	Thiourea
U220	108-88-3	Benzene, methyl-
U220	108-88-3	Toluene
U221	25376-45-8	Benzenediamine, ar-methyl-
U221	25376-45-8	Toluenediamine
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U222	636-21-5	o-Toluidine hydrochloride
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U223	26471-62-5	Toluene diisocyanate (R,T)
U225	75-25-2	Bromoform
U225	75-25-2	Methane, tribromo-
U226	71-55-6	Ethane, 1,1,1-trichloro-
U226	71-55-6	Methyl chloroform
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	Ethane, 1,1,2-trichloro-

U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Ethene, trichloro-
U228	79-01-6	Trichloroethylene
U234	99-35-4	Benzene, 1,3,5-trinitro-
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-((3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl)bis(azo)bis(5-amino-4-hydroxy)-, tetrasodium salt
U236	72-57-1	Trypan blue
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-(bis(2-chloroethyl)amino)-
U237	66-75-1	Uracil mustard
U238	51-79-6	Carbamic acid, ethyl ester
U238	51-79-6	Ethyl carbamate (urethane)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U239	1330-20-7	Xylene (I)
U240	(1)94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters
U240	(1)94-75-7	2,4-D, salts & esters
U243	1888-71-7	Hexachloropropene
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U244	137-26-8	Thioperoxydicarbonic diamide $((H_2N)C(S))_2 S_2$, tetramethyl-
U244	137-26-8	Thiram
U246	506-68-3	Cyanogen bromide (CN)Br
U247	72-43-5	Benzene, 1,1′-(2,2,2-trichloroethylidene)bis(4- methoxy-
U247	72-43-5	Methoxychlor
U248	(1)81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenyl-butyl)-, and salts, if present at concentrations of 0.3% or less
U248	(1)81-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U249	1314-84-7	Zinc phosphide $Zn_3 P_2$, when present at concentrations of 10% or less
U271	17804-35-2	Benomyl
U271	17804-35-2	Carbamic acid, (1-((butylamino)carbonyl)-1H-benzimidazol-2-yl)-, methyl ester
U278	22781-23-3	Bendiocarb
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate
U279	63-25-2	Carbaryl
U279	63-25-2	1-Naphthalenol, methylcarbamate
U280	101-27-9	Barban
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester
U328	95-53-4	Benzenamine, 2-methyl-
U328	95-53-4	o-Toluidine
U353	106-49-0	Benzenamine, 4-methyl-
U353	106-49-0	p-Toluidine
U359	110-80-5	Ethanol, 2-ethoxy-
U359	110-80-5	Ethylene glycol monoethyl ether
U364	22961-82-6	Bendiocarb phenol
U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-

U367	1563-38-8	Carbofuran phenol
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester
U372	10605-21-7	Carbendazim
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester
U373	122-42-9	Propham
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester
U387	52888-80-9	Prosulfocarb
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester
U389	2303-17-5	Triallate
U394	30558-43-1	A2213
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester
U395	5952-26-1	Diethylene glycol, dicarbamate
U395	5952-26-1	Ethanol, 2,2′-oxybis-, dicarbamate
U404	121-44-8	Ethanamine, N,N-diethyl-
U404	121-44-8	Triethylamine
U409	23564-05-8	Carbamic acid, (1,2-phenylenebis (iminocarbonothioyl))bis-, dimethyl ester
U409	23564-05-8	Thiophanate-methyl
U410	59669-26-0	Ethanimidothioic acid, N,N'-(thiobis((methylimino)carbonyloxy))bis-, dimethyl ester
U410	59669-26-0	Thiodicarb
U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate
U411	114-26-1	Propoxur
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
See F027	87-86-5	Pentachlorophenol
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
See F027	93-72-1	Silvex (2,4,5-TP)
See F027	93-76-5	2,4,5-T
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
Note (1) CAS Number given for parent compound only.		

R315-261-35. Lists of Hazardous Wastes - Deletion of Certain Hazardous Waste Codes Following Equipment Cleaning and Replacement.

(a) Wastes from wood preserving processes at plants that do not resume or initiate use of chlorophenolic preservatives will not meet the listing definition of F032 once the generator has met all of the requirements of Subsections R315-261-35(b) and (c). These wastes may, however, continue to meet another hazardous waste listing description or may exhibit one or more of the hazardous waste characteristics.

(b) Generators shall either clean or replace all process equipment that may have come into contact with chlorophenolic formulations or constituents thereof, including, but not limited to, treatment cylinders, sumps, tanks, piping systems, drip pads, fork lifts, and trams, in a manner that minimizes or eliminates the escape of hazardous waste or constituents, leachate, contaminated drippage, or hazardous waste decomposition products to the ground water, surface water, or atmosphere.

(1) Generators shall do one of the following:

(i) Prepare and follow an equipment cleaning plan and clean equipment in accordance with Section R315-261-35;

(ii) Prepare and follow an equipment replacement plan and replace equipment in accordance with Section R315-261-35; or

(iii) Document cleaning and replacement in accordance with Section R315-261-35, carried out after termination of use of chlorophenolic preservations.

(2) Cleaning Requirements.

(i) Prepare and sign a written equipment cleaning plan that describes:

(A) The equipment to be cleaned;
(B) How the equipment will be cleaned;
(C) The solvent to be used in cleaning;
(D) How solvent rinses will be tested; and
(E) How cleaning residues will be disposed.
(ii) Equipment shall be cleaned as follows:
(A) Remove all visible residues from process equipment;
(B) Rinse process equipment with an appropriate solvent until dioxins and dibenzofurans are not detected in the final solvent rinse.
(iii) Analytical requirements.
(A) Rinses shall be tested by using an appropriate method.
(B) "Not detected" means at or below the following lower method calibration limits (MCLs): The 2,3,7,8-TCDD-based MCL-0.01 parts per trillion (ppt), sample weight of 1000 g, IS spiking level of 1 ppt, final extraction volume of 10-50 microliters. For other congeners-multiply the values by 1 for TCDF/PeCDD/PeCDF, by 2.5 for HxCDD/HxCDF/HpCDD/HpCDF, and by 5 for OCDD/OCDF.
(iv) The generator shall manage all residues from the cleaning process as F032 waste.
(3) Replacement requirements.
(i) Prepare and sign a written equipment replacement plan that describes:
(A) The equipment to be replaced;
(B) How the equipment will be replaced; and
(C) How the equipment will be disposed.
(ii) The generator shall manage the discarded equipment as F032 waste.
(4) Documentation requirements.
(i) Document that previous equipment cleaning and/or replacement was performed in accordance with Section R315-261-35 and occurred after cessation of use of chlorophenolic preservatives.
(c) The generator shall maintain the following records documenting the cleaning and replacement as part of the facility's operating record:
(1) The name and address of the facility;
(2) Formulations previously used and the date on which their use ceased in each process at the plant;
(3) Formulations currently used in each process at the plant;
(4) The equipment cleaning or replacement plan;
(5) The name and address of any persons who conducted the cleaning and replacement;
(6) The dates on which cleaning and replacement were accomplished;
(7) The dates of sampling and testing;
(8) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization, preservation, and chain-of-custody of the samples;
(9) A description of the tests performed, the date the tests were performed, and the results of the tests;
(10) The name and model numbers of the instrument(s) used in performing the tests;
(11) QA/QC documentation; and
(12) The following statement signed by the generator or his authorized representative: I certify under penalty of law that all process equipment required to be cleaned or replaced under Section R315-261-35 was cleaned or replaced as represented in the equipment cleaning and replacement plan and accompanying documentation. I am aware that there are significant penalties for providing false information, including the possibility of fine or imprisonment.

R315-261-39. Exclusions and Exemptions - Conditional Exclusion for Used, Broken Cathode Ray Tubes (CRTs) and Processed CRT Glass Undergoing Recycling.

Used, broken CRTs are not solid wastes if they meet the following conditions:
(a) Before processing. These materials are not solid wastes if they are destined for recycling and if they meet the following requirements:
(1) Storage. The broken CRTs shall be either:
(i) stored in a building with a roof, floor, and walls, or
(ii) placed in a container, for example, a package or a vehicle, that is constructed, filled, and closed to minimize releases to the environment of CRT glass, including fine solid materials.
(2) Labeling. Each container in which the used, broken CRT is contained shall be labeled or marked clearly with one of the following phrases: "Used cathode ray tube(s)-contains leaded glass " or "Leaded glass from televisions or computers." It shall also be labeled: "Do not mix with other glass materials."
(3) Transportation. The used, broken CRTs shall be transported in a container meeting the requirements of Subsections R315-261-39(a)(1)(ii) and R315-261-39(a)(2).
(4) Speculative accumulation and use constituting disposal. The used, broken CRTs are subject to the limitations on speculative accumulation as defined in Subsection R315-261-39(c)(8). If they are used in a manner constituting disposal, they shall comply with the applicable requirements of Sections R315-266-20 through R315-266-23 instead of the requirements of Section R315-261-39.
(5) Exports. In addition to the applicable conditions specified in Subsections R315-261-39(a)(1)through R315-261-39(a)(4), exporters of used, broken CRTs shall comply with the following requirements:
(i) Notify EPA of an intended export before the CRTs are scheduled to leave the United States. A complete notification should be submitted 60 days before the initial shipment is intended to be shipped off site. This notification may cover export activities extending over a 12 month or lesser period. The notification shall be in writing, signed by the exporter, and include the following information:
(A) Name, mailing address, telephone number and EPA ID number, if applicable, of the exporter of the CRTs.
(B) The estimated frequency or rate at which the CRTs are to be exported and the period over which they are to be exported.
(C) The estimated total quantity of CRTs specified in kilograms.
(D) The points of entry to and departure from each foreign country through which the CRTs will pass.
(E) A description of the means by which each shipment of the CRTs will be transported; such as mode of transportation vehicle, air, highway, rail, water; types of container, drums, boxes, tanks.

(F) The name and address of the recycler or recyclers and the estimated quantity of used CRTs to be sent to each facility, as well as the names of any alternate recyclers.

(G) A description of the manner in which the CRTs will be recycled in the foreign country that will be receiving the CRTs.

(H) The name of any transit country through which the CRTs will be sent and a description of the approximate length of time the CRTs will remain in the transit country and the nature of their handling while there.

(ii) Notifications shall be submitted electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system.

(iii) Upon request by EPA, the exporter shall furnish to EPA any additional information that a receiving country requests to respond to a notification.

(iv) EPA shall provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification that EPA determines satisfies the requirements of Subsection R315-261-39(a)(5)(i).

(v) The export of CRTs is prohibited unless each of the following occur:

(A) The receiving country consents to the intended export. When the receiving country consents in writing to the receipt of the CRTs, EPA will forward an Acknowledgment of Consent to Export CRTs to the exporter. If the receiving country objects to receipt of the CRTs or withdraws a earlier consent, EPA will notify the exporter in writing. EPA will also notify the exporter of any responses from transit countries.

(B) On or after the AES filing compliance date, the exporter or a U.S. authorized agent shall:

(I) Submit Electronic Export Information (EEI) for each shipment to the Automated Export System (AES) or its successor system, under the International Trade Data System (ITDS) platform, in accordance with 15 CFR 30.4(b).

(II) Include the following items in the EEI, along with the other information required under 15 CFR 30.6: EPA license code; Commodity classification code per 15 CFR 30.6(a)(12); EPA consent number; Country of ultimate destination per 15 CFR 30.6(a)(5); Date of export per 15 CFR 30.6(a)(2); Quantity of waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6(a)(15); or EPA net quantity reported in units of kilograms, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(vi) If the conditions specified on the original notification change, the exporter shall provide EPA with a written renotification of the change using the allowable methods listed in Subsection R315-261-39(a)(5)(ii), except for changes to the telephone number in Subsection R315-261-39(a)(5)(i)(A) and decreases in the quantity indicated pursuant to Subsection R315-261-39(a)(5)(i)(C). The shipment cannot take place until consent of the receiving country to the changes has been received, except for changes to information about points of entry and departure and transit countries pursuant to Subsections R315-261-39(a)(5)(i)(D) and R315-261-39(a)(5)(i)(H) and the exporter of CRTs receives from EPA a copy of the Acknowledgment of Consent to Export CRTs reflecting the receiving country's consent to the changes.

(vii) A copy of the Acknowledgment of Consent to Export CRTs shall accompany the shipment of CRTs. The shipment shall conform to the terms of the Acknowledgment.

(viii) If a shipment of CRTs cannot be delivered for any reason to the recycler or the alternate recycler, the exporter of CRTs shall renotify EPA of a change in the conditions of the original notification to allow shipment to a new recycler in accordance with Subsection R315-261-39(a)(5)(vi) and get another Acknowledgment of Consent to Export CRTs.

(ix) Exporters shall keep copies of notifications and Acknowledgments of Consent to Export CRTs for a period of three years following receipt of the Acknowledgment. Exporters may satisfy this recordkeeping requirement by keeping electronically submitted notifications or electronically generated Acknowledgements in the CRT exporter's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, if these copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No CRT exporter may be held liable for the inability to produce a notification or Acknowledgement for inspection under Section R315-261-39 if the CRT exporter can demonstrate that the inability to produce copies is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system for which the CRT exporter bears no responsibility.

(x) CRT exporters shall file with EPA no later than March 1 of each year, an annual report summarizing the quantities, in kilograms; frequency of shipment; and ultimate destinations, for example, the facility or facilities where the recycling occurs, of the used CRTs exported during the previous calendar year. Annual reports shall also include the following:

(A) the name; EPA ID number, if applicable; and mailing and site address of the exporter;

(B) the calendar year covered by the report; and

(C) a certification signed by the CRT exporter that states:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(xi) Before one year after the AES filing compliance date, annual reports shall be sent to the following mailing address: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch, (Mail Code 2255A), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460. Hand-delivered annual reports on used CRTs exported during 2016 should be sent to: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch, (Mail Code 2255A), Environmental Protection Agency, William Jefferson Clinton South Building, Room 6144, 1200 Pennsylvania Ave. NW., Washington, DC 20004. Subsequently, annual reports shall be submitted to the office listed using the allowable methods specified in Subsection R315-261-39(a)(5)(ii). Exporters shall keep copies of each annual report for a period of at least three years from the due date of the report. Exporters may satisfy this recordkeeping requirement by keeping electronically submitted annual reports in the CRT exporter's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, if a copy is readily available for viewing and production if requested by any EPA or authorized Utah inspector. No CRT exporter may be held liable for the inability to produce an annual report for inspection under Section R315-261-39 if the CRT exporter can demonstrate that the inability to produce the annual report is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system for which the CRT exporter bears no responsibility.

(b) Requirements for used CRT processing: Used, broken CRTs undergoing CRT processing as defined in Section R315-260-10 are not solid wastes if they meet the following requirements:

(1) Storage. Used, broken CRTs undergoing processing are subject to the requirement of Subsection R315-261-39(a)(4).

(2) Processing.

(i) The activities specified in Subsections R315-260-10(32)(ii) and R315-260-10(32)(iii) of the definition of CRT Processing in Section R315-260-10 shall be performed within a building with a roof, floor, and walls; and

(ii) No activities may be performed that use temperatures high enough to volatilize lead from CRTs.

(c) Processed CRT glass sent to CRT glass making or lead smelting: Glass from used CRTs that is destined for recycling at a CRT glass manufacturer or a lead smelter after processing is not a solid waste unless it is speculatively accumulated as defined in Subsection R315-261-1(c)(8).

(d) Use constituting disposal. Glass from used CRTs that is used in a manner constituting disposal shall comply with the requirements of Sections R315-266-20 through R315-266-23 instead of the requirements of Section R315-261-39.

R315-261-40. Exclusions and Exemptions - Conditional Exclusion for Used, Intact Cathode Ray Tubes (CRTs) Exported for Recycling.

Used, intact CRTs exported for recycling are not solid wastes if they meet the notice and consent conditions of Subsection R315-261-39(a)(5), and if they are not speculatively accumulated as defined in Subsection R315-261-1(c)(8).

R315-261-41. Exclusions and Exemptions - Notification and Recordkeeping for Used, Intact Cathode Ray Tubes (CRTs) Exported for Reuse.

(a) CRT exporters who export used, intact CRTs for reuse shall send a notification to EPA. This notification may cover export activities extending over a 12 month or lesser period.

(1) The notification shall be in writing, signed by the exporter, and include the following information:

(i) name, mailing address, telephone number, and EPA ID number, if applicable, of the exporter of the used, intact CRTs;

(ii) the estimated frequency or rate at which the used, intact CRTs are to be exported for reuse and the period over which they are to be exported;

(iii) the estimated total quantity of used, intact CRTs specified in kilograms;

(iv) the points of entry to and departure from each transit country through which the used, intact CRTs will pass, a description of the approximate length of time the used, intact CRTs will remain in the transit country, and the nature of their handling while there;

(v) a description of the means by which each shipment of the used, intact CRTs will be transported; such as mode of transportation vehicle, air, highway, rail, water; types of container, drums, boxes, tanks;

(vi) the name and address of the ultimate destination facility or facilities where the used, intact CRTs will be reused, refurbished, distributed, or sold for reuse and the estimated quantity of used, intact CRTs to be sent to each facility, as well as the name of any alternate destination facility or facilities;

(vii) a description of the manner in which the used, intact CRTs will be reused, including reuse after refurbishment, in the foreign country that will be receiving the used, intact CRTs; and

(viii) a certification signed by the CRT exporter that states: "I certify under penalty of law that the CRTs described in this notice are intact and fully functioning or capable of being functional after refurbishment and that the used CRTs will be reused or refurbished and reused. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(2) Notifications submitted by mail should be sent to the following mailing address: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch, (Mail Code 2255A), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460. Hand-delivered notifications should be sent to: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch, (Mail Code 2255A), Environmental Protection Agency, William Jefferson Clinton South Building, Room 6144, 1200 Pennsylvania Ave. NW., Washington, DC 20004. In both cases, the following shall be prominently displayed on the front of the envelope: "Attention: Notification of Intent to Export CRTs."

(b) CRT exporters of used, intact CRTs sent for reuse shall keep copies of normal business records, such as contracts, demonstrating that each shipment of exported used, intact CRTs will be reused. This documentation shall be kept for a period of at least three years from the date the CRTs were exported. If the documents are written in a language other than English, CRT exporters of used, intact CRTs sent for reuse shall provide both the original, non-English version of the normal business records as well as a third-party translation of the normal business records into English within 30 days upon request by EPA.

R315-261-140. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Applicability.

(a) The requirements of Sections R315-261-140 through 143 and R315-261-147 through 151 and Appendix I to R315-261 apply to owners or operators of reclamation and intermediate facilities managing hazardous secondary materials excluded under Subsection R315-261-4(a)(24), except as provided otherwise in Subsection R315-261-140(b).

(b) States and the Federal government are exempt from the financial assurance requirements of Sections R315-261-140 through 143and R315-261-147 through 151.

R315-261-141. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Definitions of Terms as Used in Sections R315-261-140 Through R315-261-151.

The terms defined in Subsections R315-265-141(d), R315-265-141(f), R315-265-141(g), and R315-265-141(h) have the same meaning in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151 as they do in Section R315-265-141.

R315-261-142. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Cost Estimate.

(a) The owner or operator shall have a detailed written estimate, in current dollars, of the cost of disposing of any hazardous secondary material as listed or characteristic hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility.

(1) The estimate shall equal the cost of conducting the activities described in Subsection R315-261-142(a) at the point when the extent and manner of the facility's operation would make these activities the most expensive.

(2) The cost estimate shall be based on the costs to the owner or operator of hiring a third party to conduct these activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. See the definition of "parent corporation" in Subsection R315-265-141(d). The owner or operator may use costs for on-site disposal in accordance with applicable requirements if the owner or operator can demonstrate that on-site disposal capacity will exist always over the life of the facility.

(3) The cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under Subsection R315-265-113(d), facility structures or equipment, land, or other assets associated with the facility.

(4) The owner or operator may not incorporate a zero cost for hazardous secondary materials, or hazardous or non-hazardous wastes if applicable under Subsection R315-265-113(d), that might have economic value.

(b) During the active life of the facility, the owner or operator shall adjust the cost estimate for inflation within 60 days before the anniversary date of the establishment of the financial instruments used to comply with Section R315-261-143. For owners and operators using the financial test or corporate guarantee, the cost estimate shall be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the director as specified in Subsection R315-261-143(e)(3). The adjustment may be made by recalculating the cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in Subsections R315-261-142(b)(1) and R315-261-142(b)(2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the cost estimate by the inflation factor. The result is the adjusted cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the cost estimate no later than 30 days after a change in a facility's operating plan or design that would increase the costs of conducting the activities described in Subsection R315-261-142(a) or no later than 60 days after an unexpected event that increases the cost of conducting the activities described in Subsection R315-261-142(a). The revised cost estimate shall be adjusted for inflation as specified in Subsection R315-261-142(b).

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: The latest cost estimate prepared in accordance with Subsections R315-261-142(a) and R315-261-142(c) and, if this estimate has been adjusted in accordance with Subsection R315-261-142(b), the latest adjusted cost estimate.

R315-261-143. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Financial Assurance Condition.

As provided in Subsection R315-261-4(a)(24)(vi)(F), an owner or operator of a reclamation or intermediate facility shall have financial assurance as a condition of the exclusion as required under Subsection R315-261-4(a)(24). The owner or operator shall choose from the options as specified in Subsections R315-261-143(a) through R315-261-143(e).

(a) Trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by establishing a trust fund that conforms to the requirements of Subsection R315-261-143(a) and submitting an originally signed duplicate of the trust agreement to the director. The trustee shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

(2) The wording of the trust agreement shall be identical to the wording specified in Subsection R315-261-151(a)(1), and the trust agreement shall be accompanied by a formal certification of acknowledgment, for example, see Subsection R315-261-151(a)(2). Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current cost estimate covered by the agreement.

(3) The trust fund shall be funded for the full amount of the current cost estimate before it may be relied upon to satisfy the requirements of Section R315-261-143.

(4) If the current cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current cost estimate, or get other financial assurance as specified in Section R315-261-143 to cover the difference.

(5) If the value of the trust fund is greater than the total amount of the current cost estimate, the owner or operator may submit a written request to the director for release of the amount in excess of the current cost estimate.

(6) If an owner or operator substitutes other financial assurance as specified in Section R315-261-143 for the trust fund or part of the trust fund, the owner or operator may submit a written request to the director for release of the amount in excess of the current cost estimate covered by the trust fund.

(7) Within 60 days after receiving a request from the owner or operator for release of funds as specified in Subsection R315-261-143(a)(5) or R315-261-143(a)(6), the director shall instruct the trustee to release to the owner or operator those funds that the director specifies in writing. If the owner or operator begins final closure under Sections R315-264-110 through R315-264-120 or R315-265-110 through R315-265-121, an owner or operator may request reimbursements for partial or final closure expenditures by submitting itemized bills to the director. The owner or operator may request reimbursements for partial closure only if enough funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the director shall instruct the trustee to make reimbursements in those amounts as the director specifies in writing, if the director determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, the director may withhold reimbursements of any amounts that the director considers prudent until the director determines, in accordance with Subsection R315-261-143(i) that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the director does not instruct the trustee to make the reimbursements, the director shall provide to the owner or operator a detailed written statement of reasons.

(8) The director shall agree to termination of the trust if:

(i) an owner or operator substitutes alternate financial assurance as specified in Section R315-261-143; or

(ii) the director releases the owner or operator from the requirements of Section R315-261-143 in accordance with Subsection R315-261-143(i).

(b) Surety bond guaranteeing payment into a trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by getting a surety bond that conforms to the requirements of Subsection R315-261-143(b) and submitting the bond to the director. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-261-151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of Section R315-261-143 shall also establish a standby trust fund. Under the terms of the bond, any payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the director. This standby trust fund shall meet the requirements specified in Subsection R315-261-143(a), except that:

(i) an originally signed duplicate of the trust agreement shall be submitted to the director with the surety bond; and

(ii) until the standby trust fund is funded pursuant to the requirements of Section R315-261-143, the owner or operator is not required to comply with Subsections R315-261-143(b)(3)(ii)(A) through R315-261-143(b)(3)(ii)(D):

(A) Payments into the trust fund as specified in Subsection R315-261-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-261-151(a), to show current cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) fund the standby trust fund in an amount equal to the penal sum of the bond before loss of the exclusion under Subsection R315-261-4(a)(24); or

(ii) fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin closure issued by the director becomes final, or within 15 days after an order to begin closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) provide alternate financial assurance as specified in Section R315-261-143, and get the director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation if the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current cost estimate, except as provided in Subsection R315-261-143(f).

(7) If the current cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current cost estimate and submit evidence of the increase to the director, or get other financial assurance as specified in Section R315-261-143 to cover the increase. If the current cost estimate decreases, the penal sum may be reduced to the amount of the current cost estimate following written approval by the director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the director has given earlier written consent based on the director's receipt of evidence of alternate financial assurance as specified in Section R315-261-143.

(c) Letter of credit.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by getting an irrevocable standby letter of credit that conforms to the requirements of Subsection R315-261-143(c) and submitting the letter to the director. The issuing institution shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency.

(2) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-261-151(c).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-261-143 shall also establish a standby trust fund. Under the terms of the letter of credit, any amounts paid pursuant to a draft by the director shall be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the director. This standby trust fund shall meet the requirements of the trust fund specified in Subsection R315-261-143(a), except that:

(i) an originally signed duplicate of the trust agreement shall be submitted to the director with the letter of credit; and

(ii) unless the standby trust fund is funded pursuant to the requirements of Section R315-261-143, the owner or operator is not required to comply with Subsections R315-261-143(c)(3)(ii)(A) through R315-261-143(c)(3)(ii)(D):

(A) Payments into the trust fund as specified in Subsection R315-261-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-261-151(a), to show current cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, if any issued; name; and address of the facility; and the amount of funds assured for the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The letter of credit shall provide that the expiration date shall be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the director have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current cost estimate, except as provided in Subsection R315-261-143(f).

(7) If the current cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current cost estimate and submit evidence of the increase to the director, or get other financial assurance as specified in Section R315-261-143 to cover the increase. If the current cost estimate decreases, the amount of the credit may be reduced to the amount of the current cost estimate following written approval by the director.

(8) Following a determination by the director that the hazardous secondary materials do not meet the conditions of the exclusion under Subsection R315-261-4(a)(24), the director may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in Section R315-261-143 and get written approval of the alternate assurance from the director within 90 days after receipt by both the owner or operator and the director of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the director shall draw on the letter of credit. The director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any extension the director shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in Section R315-261-143 and get written approval of the assurance from the director.

(10) The director shall return the letter of credit to the issuing institution for termination if:

(i) an owner or operator substitutes alternate financial assurance as specified in Section R315-261-143; or

(ii) the director releases the owner or operator from the requirements of Section R315-261-143 in accordance with Subsection R315-261-143(i).

(d) Insurance.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by getting insurance that conforms to the requirements of Subsection R315-261-143(d) and submitting a certificate of insurance to the director. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in Utah.

(2) The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-261-151(d).

(3) The insurance policy shall be issued for a face amount at least equal to the current cost estimate, except as provided in Subsection R315-261-143(f). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability shall be lowered by the amount of the payments.

(4) The insurance policy shall guarantee that funds shall be available when needed to pay the cost of removal of any hazardous secondary materials from the unit, to pay the cost of decontamination of the unit, to pay the costs of the performance of activities required under Sections R315-264-110 through R315-264-120 or R315-265-110 through R315-265-121, as applicable, for the facilities covered by this policy. The policy shall also guarantee that once funds are needed, the insurer shall be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the director, to the party or parties as the director specifies.

(5) After beginning partial or final closure under Rule R315-264 or R315-265, as applicable, an owner or operator or any other authorized person may request reimbursements for closure expenditures by submitting itemized bills to the director. The owner or operator may request reimbursements only if the remaining value of the policy is enough to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the director shall instruct the insurer to make reimbursements in the amounts that the director specifies in writing if the director determines that the expenditures are in accordance with the approved plan or otherwise justified. If the director has reason to believe that the maximum cost over the remaining life of the facility will be significantly greater than the face amount of the policy, the director may withhold reimbursement of any amounts that the director considers prudent until the director determines, in accordance with Subsection R315-261-143(h), that the owner or operator is no longer required to maintain financial assurance for the particular facility. If the director does not instruct the insurer to make the reimbursements, the director shall provide to the owner or operator a detailed written statement of reasons.

(6) The owner or operator shall maintain the policy in effect until the director consents to termination of the policy by the owner or operator as specified in Subsection R315-261-143(i)(10). Failure to pay the premium, without substitution of alternate financial assurance as specified in Section R315-261-143, shall constitute a significant violation of Section R315-261-143 warranting a remedy that the director considers necessary. The violation shall be considered to begin upon receipt by the director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. The assignment may be conditional upon consent of the insurer, provided the consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the director and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy shall remain in effect if on or before the date of expiration:

(i) the director considers the facility abandoned; or

(ii) conditional exclusion or interim status is lost, terminated, or revoked; or

(iii) closure is ordered by the director or a U.S. district court or other court of competent jurisdiction; or

(iv) the owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11, Bankruptcy, U.S. Code; or

(v) the premium due is paid.

(9) If the current cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current cost estimate and submit evidence of the increase to the director, or get other financial assurance as specified in Section R315-261-143 to cover the increase. If the current cost estimate decreases, the face amount may be reduced to the amount of the current cost estimate following written approval by the director.

(10) The director shall give written consent to the owner or operator that the owner or operator may terminate the insurance policy if:

(i) an owner or operator substitutes alternate financial assurance as specified in Section R315-261-143; or

(ii) the director releases the owner or operator from the requirements of Section R315-261-143 in accordance with Subsection R315-261-143(i).

(e) Financial test and corporate guarantee.

(1) An owner or operator may satisfy the requirements of Section R315-261-143 by demonstrating that the owner or operator passes a financial test as specified in Subsection R315-261-143(e). To pass this test the owner or operator shall meet the criteria of either Subsection R315-261-143(e)(1)(i) or R315-261-143(e)(1)(ii):

(i) The owner or operator shall have:

(A) two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) net working capital and tangible net worth each at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(C) tangible net worth of at least $10 million; and

(D) assets located in the United States amounting to at least 90% of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator shall have:

(A) a current rating for the owner or operator's most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) tangible net worth at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates; and

(C) tangible net worth of at least $10 million; and

(D) assets located in the United States amounting to at least 90% of total assets or at least six times the sum of the current cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current cost estimates" as used in Subsection R315-261-143(e)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, Subsection R315-261-151(e). The phrase "current plugging and abandonment cost estimates" as used in Subsection R315-261-143(e)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, 40 CFR 144.70(f).

(3) To demonstrate that the owner or operator meets this test, the owner or operator shall submit the items required by Subsections R315-261-143(e)(3)(i) through R315-261-143(e)(3)(iii) to the director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-261-151(e); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies Subsection R315-261-143(e)(1)(i) that are different from the data in the audited financial statements referred to in Subsection R315-261-143(e)(3)(ii) or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in the financial statements, the findings of the comparison, and the reasons for any differences.

(4) The owner or operator may get an extension of the time allowed for submission of the documents specified in Subsection R315-261-143(e)(3) if the fiscal year of the owner or operator ends during the 90 days before the effective date of Rule R315-261 and if the year-end financial statements for that fiscal year shall be audited by an independent certified public accountant. The extension shall end no later than 90 days after the end of the owner's or operator's fiscal year. To get the extension, the owner's or operator's chief financial officer shall send, by the effective date of Rule R315-261, a letter to the director. This letter from the chief financial officer shall:

(i) request the extension;

(ii) certify that the chief financial officer has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) specify for each facility to be covered by the test the EPA Identification Number, if any are issued; name, address, and current cost estimates to be covered by the test;

(iv) specify the date ending the owner's or operator's last complete fiscal year before the effective date of Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151;

(v) specify the date, no later than 90 days after the end of the fiscal year, when the chief financial officer shall submit the documents specified in Subsection R315-261-143(e)(3); and

(vi) certify that the year-end financial statements of the owner or operator for the fiscal year shall be audited by an independent certified public accountant.

(5) After the initial submission of items specified in Subsection R315-261-143(e)(3), the owner or operator shall send updated information to the director within 90 days after the close of each succeeding fiscal year. This information shall consist of the three items specified in Subsection R315-261-143(e)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-261-143(e)(1), the owner or operator shall send notice to the director of intent to establish alternate financial assurance as specified in Section R315-261-143. The notice shall be sent by certified mail within 90 days after the end of the fiscal year that the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of the fiscal year.

(7) The director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of Subsection R315-261-143(e)(1), require reports of financial condition at any time from the owner or operator in addition to those specified in Subsection R315-261-143(e)(3). If the director finds, on the basis of the reports or other information, that the owner or operator no longer meets the requirements of Subsection R315-261-143(e)(1), the owner or operator shall provide alternate financial assurance as specified in Section R315-261-143 within 30 days after notification of such a finding.

(8) The director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in their report on examination of the owner's or operator's financial statements, see Subsection R315-261-143(e)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The director shall evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in Section R315-261-143 within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in Subsection R315-261-143(e)(3) if:

(i) an owner or operator substitutes alternate financial assurance as specified in Section R315-261-143; or

(ii) the director releases the owner or operator from the requirements of Section R315-261-143 in accordance with Subsection R315-261-143(i).

(10) An owner or operator may meet the requirements of Section R315-261-143 by getting a written guarantee. The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a substantial business relationship with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsections R315-261-143(e)(1) through R315-261-143(e)(8) and shall comply with the terms of the guarantee. The wording of the guarantee shall be identical to the wording specified in Subsection R315-261-151(g)(1). A certified copy of the guarantee shall accompany the items sent to the director as specified in Subsection R315-261-143(e)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a substantial business relationship with the owner or operator, this letter shall describe this substantial business relationship and the value received in consideration of the guarantee. The terms of the guarantee shall provide that:

(i) Following a determination by the director that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under Subsection R315-261-4(a)(24), the guarantor shall dispose of any hazardous secondary material as hazardous waste and close the facility in accordance with closure requirements found in Rule R315-264 or R315-265, as applicable, or establish a trust fund as specified in Subsection R315-261-143(a) in the name of the owner or operator in the amount of the current cost estimate.

(ii) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the director, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in Section R315-261-143 and get the written approval of the alternate assurance from the director within 90 days after receipt by both the owner or operator and the director of a notice of

cancellation of the corporate guarantee from the guarantor, the guarantor shall provide the alternate financial assurance in the name of the owner or operator.

(f) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of Section R315-261-143 by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms shall be as specified in Subsections R315-261-143(a) through R315-261-143(d), except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, the owner or operator may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The director may use any or all the mechanisms to provide for the facility.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in Section R315-261-143 to meet the requirements of Section R315-261-143 for more than one facility. Evidence of financial assurance submitted to the director shall include a list showing, for each facility, the EPA Identification Number, if any issued; name, address, and the amount of funds assured by the mechanism. In directing funds available through the mechanism for any of the facilities covered by the mechanism, the director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) Removal and Decontamination Plan for Release.

(1) An owner or operator of a reclamation facility or an intermediate facility who wishes to be released from the owner or operator's financial assurance obligations under Subsection R315-261-4(a)(24)(vi)(F) shall submit a plan for removing the hazardous secondary material residues to the director at least 180 days before the date that the owner or operator expects to stop operating under the exclusion.

(2) The plan shall include, at least:

(A) for each hazardous secondary materials storage unit subject to financial assurance requirements under Subsection R315-261-4(a)(24)(vi)(F), a description of how the excluded hazardous secondary materials shall be recycled or sent for recycling, and how the residues, contaminated containment systems, liners, contaminated soils; subsoils; structures; and equipment shall be removed or decontaminated as necessary to protect human health and the environment; and

(B) a detailed description of the steps necessary to remove or decontaminate the hazardous secondary material residues and contaminated containment system components, equipment, structures, and soils including procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to protect human health and the environment; and

(C) a detailed description of any other activities necessary to protect human health and the environment during this timeframe, including leachate collection, run-on and run-off control; and

(D) a schedule for conducting the activities described that, at a minimum, includes the total time required to remove the excluded hazardous secondary materials for recycling and decontaminate the units subject to financial assurance under Subsection R315-261-4(a)(24)(vi)(F) and the time required for intervening activities that will allow tracking of the progress of decontamination.

(3) The director shall provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. The director shall also, in response to a request or at the director's discretion, hold a public hearing if such a hearing might clarify one or more issues concerning the plan. The director shall give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given when notice of the opportunity for the public to submit written comments is given, and the two notices may be combined. The director shall approve, modify, or disapprove the plan within 90 days of its receipt. If the director does not approve the plan, the director shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator shall modify the plan or submit a new plan for approval within 30 days after receiving the written statement. The director shall approve or modify this plan in writing within 60 days. If the director modifies the plan, this modified plan becomes the approved plan. The director shall assure that the approved plan is consistent with Subsection R315-261-143(h). A copy of the modified plan with a detailed statement of reasons for the modifications shall be mailed to the owner or operator.

(4) Within 60 days of completion of the activities described for each hazardous secondary materials management unit, the owner or operator shall submit to the director, by registered mail, a certification that the hazardous secondary materials have been removed from the unit and the unit has been decontaminated in accordance with the specifications in the approved plan. The certification shall be signed by the owner or operator and by a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification shall be furnished to the director, upon request, until the director releases the owner or operator from the financial assurance requirements for Subsection R315-261-4(a)(24)(vi)(F).

(i) Release of the owner or operator from the requirements of Section R315-261-143. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that the hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan as required in Subsection R315-261-143(h), the director shall notify the owner or operator in writing that the owner or operator is no longer required under Subsection R315-261-4(a)(24)(vi)(F) to maintain financial assurance for that facility or a unit at the facility, unless the director has reason to believe that the hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan. The director shall provide the owner or operator a detailed written statement of any reason to believe that the hazardous secondary materials have not been removed from the unit or that the unit has not been decontaminated in accordance with the approved plan.

R315-261-147. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Liability Requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous secondary material reclamation facility or an intermediate facility subject to financial assurance requirements under Subsection R315-261-4(a)(24)(vi)(F), or a group of these facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in Subsection R315-261-147(a)(1), R315-261-147(a)(2), R315-261-146(a)(3), R315-261-147(a)(4), R315-261-147(a)(5), or R315-261-147(a)(6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Subsection R315-261-147(a).

(i) Each insurance policy shall be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement, or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-261-151(h). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-261-151(i). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the director. If requested by a director, the owner or operator shall provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy shall be issued by an insurer that, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in Utah.

(2) An owner or operator may meet the requirements of Section R315-261-147 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-261-147(f) and R315-216-147(g).

(3) An owner or operator may meet the requirements of Section R315-261-147 by getting a letter of credit for liability coverage as specified in Subsection R315-261-147(h).

(4) An owner or operator may meet the requirements of Section R315-261-147 by getting a surety bond for liability coverage as specified in Subsection R315-261-147(i).

(5) An owner or operator may meet the requirements of Section R315-261-147 by getting a trust fund for liability coverage as specified in Subsection R315-261-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by Section R315-261-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under Subsection R315-261-147(a)(6), the owner or operator shall specify at least one assurance as primary coverage and shall specify other assurance as excess coverage.

(7) An owner or operator shall notify the director in writing within 30 days if:

(i) a claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in Subsections R315-261-147(a)(1) through R315-261-147(a)(6); or

(ii) a Certification of Valid Claim for bodily injury or property damages caused by a sudden or nonsudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is entered between the owner or operator and third-party claimant for liability coverage under Subsections R315-261-147(a)(1) through R315-261-147(a)(6); or

(iii) a final court order establishing a judgment for bodily injury or property damage caused by a sudden or nonsudden accidental occurrence arising from the operation of a hazardous secondary material reclamation facility or intermediate facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-261-147(a)(1) through R315-261-147(a)(6).

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a hazardous secondary material reclamation facility or intermediate facility with land-based units, as defined in Section R315-260-10, which are used to manage hazardous secondary materials excluded under Subsection R315-261-4(a)(24) or a group of these facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who shall meet the requirements of Section R315-261-147 may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences shall maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in Subsection R315-261-147(b)(1), R315-261-147(b)(2), R315-261-147(b)(3), R315-261-147(b)(4), R315-261-147(b)(5), or R315-261-147(b)(6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Section R315-261-147.

(i) Each insurance policy shall be amended by attachment of the Hazardous Secondary Material Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-261-151(h). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-261-151(i). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the director.

(ii) Each insurance policy shall be issued by an insurer that, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in Utah.

(2) An owner or operator may meet the requirements of Section R315-261-147 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-261-147(f) and R315-261-147(g).

(3) An owner or operator may meet the requirements of Section R315-261-147 by getting a letter of credit for liability coverage as specified in Subsection R315-261-147(h).

(4) An owner or operator may meet the requirements of Section R315-261-147 by getting a surety bond for liability coverage as specified in Subsection R315-261-147(i).

(5) An owner or operator may meet the requirements of Section R315-261-147 by getting a trust fund for liability coverage as specified in Subsection R315-261-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by Section R315-261-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under Subsection R315-261-147(b), the owner or operator shall specify at least one assurance as primary coverage and shall specify other assurance as excess coverage.

(7) An owner or operator shall notify the director in writing within 30 days if:

(i) a claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in Subsections R315-261-147(b)(1) through R315-261-147(b)(6); or

(ii) a Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material treatment or storage facility or treatment and storage facility is entered between the owner or operator and third-party claimant for liability coverage under Subsections R315-261-147(b)(1) through R315-261-147(b)(6); or

(iii) a final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous secondary material treatment or storage facility or treatment and storage facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-261-147(b)(1) through R315-261-147(b)(6).

(c) Request for alternative. If an owner or operator can demonstrate to the satisfaction of the director that the levels of financial responsibility required by Subsection R315-261-147(a) or R315-261-147(b) are not consistent with the degree and duration of risk associated with treatment or storage, or both, at the facility or group of facilities, the owner or operator may get an alternative financial liability requirement from the director. The request for an alternative financial liability requirement shall be submitted in writing to the director. If granted, the alternative financial liability requirement shall take the form of an adjusted level of required liability coverage, the level to be based on the director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The director may require an owner or operator who requests an alternative financial liability requirement to provide the technical and engineering information that is considered necessary by the director to determine a level of financial responsibility other than that required by Subsection R315-261-147(a) or R315-261-147(b).

(d) Adjustments by the director. If the director determines that the levels of financial responsibility required by Subsection R315-261-147(a) or R315-261-147(b) are not consistent with the degree and duration of risk associated with treatment or storage, or both, at the facility or group of facilities, the director may adjust the level of financial responsibility required under Subsection R315-261-147(a) or R315-261-147(b) as may be necessary to protect human health and the environment. This adjusted level shall be based on the director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the director determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, pile, or land treatment facility, the director may require that an owner or operator of the facility comply with Subsection R315-261-147(b). An owner or operator shall furnish to the director, within a reasonable time, any information that the director requests to determine whether cause exists for adjustments of level or type of coverage.

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that the hazardous secondary materials have been removed from the facility or a unit at the facility and the facility or a unit has been decontaminated in accordance with the approved plan per Subsection R315-261-143(h), the director shall notify the owner or operator in writing that the owner or operator is no longer required under Subsection R315-261-4(a)(24)(vi)(F) to maintain liability coverage for that facility or a unit at the facility, unless the director has reason to believe that that the hazardous secondary materials have not been removed from the facility or unit at a facility or that the facility or unit has not been decontaminated in accordance with the approved plan.

(f) Financial test for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-261-147 by demonstrating that the owner or operator passes a financial test as specified in this paragraph. To pass this test the owner or operator shall meet the criteria of Subsection R315-261-147(f)(1)(i) or R315-261-147(f)(1)(ii):

(i) The owner or operator shall have:

(A) net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) tangible net worth of at least $10 million; and

(C) assets in the United States amounting to either:

(I) at least 90% of the owner or operator's total assets; or

(II) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator shall have:

(A) a current rating for the owner or operator's most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) tangible net worth of at least $10 million; and

(C) tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) assets in the United States amounting to either:

(I) at least 90% of the owner or operator's total assets; or

(II) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in Subsection R315-261-147(f)(1) refers to the annual aggregate amounts that coverage is required for under Subsections R315-261-147(a) and R315-261-147(b) and the annual aggregate amounts that coverage is required for under Subsections R315-264-147(a) and R315-264-147(b) and R315-265-147(a) and R315-265-147(b).

(3) To demonstrate that the owner or operator meets this test, the owner or operator shall submit the three items listed in Subsections R315-261-147(f)(3)(i) through R315-261-147(f)(3)(iii) to the director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-261-151(f). If an owner or operator is using the financial test to demonstrate both assurance as specified by Subsection R315-261-143(e), and liability coverage, the owner or operator shall submit the letter specified in Subsection R315-261-151(f) to cover both forms of financial responsibility, a separate letter as specified in Subsection R315-261-151(e) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies Subsection R315-261-147(f)(1)(i) that are different from the data in the audited financial statements referred to in Subsection R315-261-147(f)(3)(ii) or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in the financial statements, the findings of the comparison, and the reasons for any difference.

(4) The owner or operator may get a one-time extension of the time allowed for submission of the documents specified in Subsection R315-261-147(f)(3) if the fiscal year of the owner or operator ends during the 90 days before the effective date of Rule R315-261 and if the year-end financial statements for that fiscal year shall be audited by an independent certified public accountant. The extension shall end no later than 90 days

after the end of the owner's or operator's fiscal year. To get the extension, the owner's or operator's chief financial officer shall send, by the effective date of Rule R315-261, a letter to the director. This letter from the chief financial officer shall:

(i) request the extension;

(ii) certify that the chief financial officer has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, if applicable, current closure and post-closure cost estimates to be covered by the test;

(iv) specify the date ending the owner's or operator's last complete fiscal year before the effective date of Rule R315-261;

(v) specify the date, no later than 90 days after the end of the fiscal year, when the chief financial officer will submit the documents specified in Subsection R315-261-147(f)(3); and

(vi) certify that the year-end financial statements of the owner or operator for the fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in Subsection R315-261-147(f)(3), the owner or operator shall send updated information to the director within 90 days after the close of each succeeding fiscal year. This information shall consist of the three items specified in Subsection R315-261-147(f)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-261-147(f)(1), the owner or operator shall get insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in Section R315-261-147. Evidence of liability coverage shall be submitted to the director within 90 days after the end of the fiscal year that the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in their report on examination of the owner's or operator's financial statements, see Subsection R315-261-147(f)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The director shall evaluate other qualifications on an individual basis. The owner or operator shall provide evidence of insurance for the entire amount of required liability coverage as specified in Section R315-261-147 within 30 days after notification of disallowance.

(g) Guarantee for liability coverage.

(1) Subject to Subsection R315-261-147(g)(2), an owner or operator may meet the requirements of Section R315-261-147 by getting a written guarantee, referred to as guarantee in Subsection R315-261-147(g). The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a substantial business relationship with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsections R315-261-147(f)(1) through R315-261-147(f)(6). The wording of the guarantee shall be identical to the wording specified in Subsection R315-261-151(g)(2). A certified copy of the guarantee shall accompany the items sent to the director as specified in Subsection R315-261-147(f)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a substantial business relationship with the owner or operator, this letter shall describe this substantial business relationship and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences, or both as the case may be, arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from the injury or damage, the guarantor shall do so up to the limits of coverage.

(2)(i) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of Section R315-261-147 only if the non-U.S. corporation has identified a registered agent for service of process in Utah.

(h) Letter of credit for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-261-147 by getting an irrevocable standby letter of credit that conforms to the requirements of Subsection R315-261-147(h) and submits a copy of the letter of credit to the director.

(2) The financial institution issuing the letter of credit shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or Utah agency.

(3) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-261-151(j).

(4) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-261-147 may also establish a standby trust fund. Under the terms of such a letter of credit, the amounts paid pursuant to a draft by the trustee of the standby trust shall be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or Utah agency.

(5) The wording of the standby trust fund shall be identical to the wording specified in Subsection R315-261-151(m).

(i) Surety bond for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-261-147 by getting a surety bond that conforms to the requirements of Subsection R315-261-147(i) and submitting a copy of the bond to the director.

(2) The surety company issuing the bond shall be among those listed as acceptable sureties on federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The wording of the surety bond shall be identical to the wording specified in Subsection R315-261-151(k).

(j) Trust fund for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-261-147 by establishing a trust fund that conforms to the requirements of Subsection R315-261-147(j) and submitting an originally signed duplicate of the trust agreement to the director.

(2) The trustee shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or Utah agency.

(3) The trust fund for liability coverage shall be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of Section R315-261-147. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the Fund, shall either add enough funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or get other financial assurance as specified in Section R315-261-147 to cover the difference. For purposes of Subsection R315-261-147(j), "the full amount of the liability coverage to be provided" means the amount of coverage for sudden or nonsudden, or both, occurrences required to be provided by the owner or operator by Section R315-261-147, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The wording of the trust fund shall be identical to the wording specified in Subsection R315-261-151(l).

R315-261-148. Financial Requirements for Management of Excluded Hazardous Secondary Materials - Incapacity of Owners or Operators, Guarantors, or Financial Institutions.

(a) An owner or operator shall notify the Director by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in Subsection R315-261-143(e) shall make such a notification if he is named as debtor, as required under the terms of the corporate guarantee.

(b) An owner or operator who fulfills the requirements of Sections R315-261-143 or R315-261-147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy shall be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator shall establish other financial assurance or liability coverage within 60 days after such an event.

R315-261-151. Financial Requirements for Management of Excluded Hazardous Secondary Materials -- Wording of the Instruments.

(a)(1) A trust agreement for a trust fund, as specified in Subsection R315-261-143(a) shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of (date) by and between (name of the owner or operator), a (name of State) (insert "corporation," "partnership," "association," or "proprietorship"), the "Grantor," and (name of corporate trustee), (insert "incorporated in the State of ___-----" or "a national bank"), the "Trustee."

Whereas, the Utah Waste Management and Radiation Control Board of the State of Utah, (the "BOARD") has established certain rules applicable to the Grantor, requiring that an owner or operator of a facility regulated under Rule R315-264, or R315-265, or satisfying the conditions of the exclusion under Subsection R315-261-4(a)(24) shall provide assurance that funds shall be available if needed for care of the facility under Sections R315-264-110 through R315-264-120 or R315-265-110 through R315-265-121, as applicable,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

(c) The term "BOARD", "Waste Management and Radiation Control Board" created pursuant to Utah Code Section 19-1-106.

(d) The term "DIRECTOR" means the Director, Division of Waste Management and Radiation Control his successors, designees, and any subsequent entity of Utah upon whom the duties of regulation and enforcement of rules governing hazardous waste.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A (on Schedule A, for each facility list the EPA Identification Number, if available; name; address; and the current cost estimates, or portions thereof; for which financial assurance is demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Director in the event that the hazardous secondary materials of the grantor no longer meet the conditions of the exclusion under Subsection R315-261-4(a)(24). The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by Director.

Section 4. Payments from the Fund. The Trustee shall make payments from the Fund as the Director shall direct, in writing, to provide for the payment of the costs of the performance of activities required under Sections R315-264-110 through R315-264-120 or R315-265-110 through R315-265-121, which are adopted by reference, for the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the Director from the Fund for expenditures for such activities in such amounts as the beneficiary shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Director specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Director shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Director to the Trustee shall be in writing, signed by the Director, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 15. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 16. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 17. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 18. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of (insert name of State).

Section 19. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-261-151(a)(1) as such rules were constituted on the date first above written.

(Signature of Grantor)

(Title)

Attest:

(Title)

(Seal)

(Signature of Trustee)

Attest:

(Title)

(Seal)

(2) The following is an example of the certification of acknowledgment which shall accompany the trust agreement for a trust fund as specified in Subsection R315-261-143(a). Utah requirements may differ on the proper content of this acknowledgment.

State of County of On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

(b) A surety bond guaranteeing payment into a trust fund, as specified in Subsection R315-261-143(b), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Financial Guarantee Bond

Date bond executed:

Effective date:

Principal: (legal name and business address of owner or operator)

Type of Organization: (insert "individual," "joint venture," "partnership," or "corporation")

State of incorporation:

Surety(ies): (name(s) and business address(es))

EPA and State Identification Numbers, name, address and amount(s) for each facility guaranteed by this bond:

Total penal sum of bond: $

Surety's bond number:

Know All Persons By These Presents, That we, the Principal and Surety(ies) are firmly bound to the Director of the Division of Waste Management and Radiation Control of the State of Utah (hereinafter called the Director) in the event that the hazardous secondary materials at the reclamation or intermediate facility listed below no longer meet the conditions of the exclusion under Subsection R315-261-4(a)(24), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Utah Solid and Hazardous Waste Act as amended, to have a permit or interim status in order to own or operate each facility identified above, or to meet conditions under Subsection R315-261-4(a)(24); and

Whereas said Principal is required to provide financial assurance as a condition of permit or interim status or as a condition of an exclusion under Subsection R315-261-4(a)(24); and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall satisfy all the conditions established for exclusion of hazardous secondary materials from coverage as solid waste under Subsection R315-261-4(a)(24),

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by the Director or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151, as applicable, and obtain the Director's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Director from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the Director that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Director.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the Director, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Director, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Director.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Director.

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-261-151(b) as such rules were constituted on the date this bond was executed.

Principal

(Signature(s))

(Name(s))

(Title(s))

(Corporate seal)Corporate Surety(ies)

(Name and address)

State of incorporation:Liability limit:

$(Signature(s))

(Name(s) and title(s))

(Corporate seal)

(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)

Bond premium: $

(c) A letter of credit, as specified in Subsection R315-261-143(c), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Irrevocable Standby Letter of Credit

(Director name), Director,

Division of Waste Management and Radiation Control

195 North 1950 West

P.O Box 144880

Salt Lake City, Utah 84114-4880

Dear Director: We hereby establish our Irrevocable Standby Letter of Credit No.____ in your favor, in the event that the hazardous secondary materials at the covered reclamation or intermediary facility(ies) no longer meet the conditions of the exclusion under Subsection R315-261-4(a)(24), at the request and for the account of (owner's or operator's name and address) up to the aggregate amount of (in words) U.S. dollars $____, available upon presentation of

(1) your sight draft, bearing reference to this letter of credit No.__, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to rules issued under authority of the Utah Solid and Hazardous Waste Act as amended."

This letter of credit is effective as of (date) and shall expire on (date at least 1 year later), but such expiration date shall be automatically extended for a period of (at least 1 year) on (date) and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you, the Director, and (owner's or operator's name) by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and (owner's or operator's name), as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of (owner's or operator's name) in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in Subsection R315-261-151(c) as such rules were constituted on the date shown immediately below.

(Signature(s) and title(s) of official(s) of issuing institution) (Date)

This credit is subject to (insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code").

(d) A certificate of insurance, as specified in Subsection R315-261-143(d), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certificate of Insurance

Name and Address of Insurer (herein called the "Insurer"):

Name and Address of Insured (herein called the "Insured"):

Facilities Covered: (List for each facility: The EPA and State Identification Numbers (if any issued), name, address, and the amount of insurance for all facilities covered, which shall total the face amount shown below.)

Face Amount:

Policy Number:

Effective Date:

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance so that in accordance with applicable rules all hazardous secondary materials can be removed from the facility or any unit at the facility and the facility or any unit at the facility can be decontaminated at the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of Subsection R315-261-143(d) as applicable and as such rules were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such rules is hereby amended to eliminate such inconsistency.

Whenever requested by the Director of the Division of Waste Management and Radiation Control, the Insurer agrees to furnish to the Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in Subsection R315-261-151(d) such rules were constituted on the date shown immediately below.

(Authorized signature for Insurer)

(Name of person signing)

(Title of person signing)

Signature of witness or notary:(Date)

(e) A letter from the chief financial officer, as specified in Subsection R315-261-143(e), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Letter From Chief Financial Officer

Director

Division of Waste Management and Radiation Control

195 North 1950 West

P.O. Box 144880

Salt Lake City, UT 84114-4880

I am the chief financial officer of (name and address of firm). This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151.

(Fill out the following nine paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA and state Identification Numbers (if any issued), name, address, and current cost estimates.)

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151. The current cost estimates covered by the test are shown for each facility: ____.

2. This firm guarantees, through the guarantee specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee____, or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee____). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter).

3. In all other states this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151. The current cost estimates covered by such a test are shown for each facility:____.

4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151 or equivalent or substantially equivalent State mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: ____.

7. This firm guarantees, through the guarantee specified in Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ___; or (3) engaged in the following substantial business relationship with the owner or operator __, and receiving the following value in consideration of this guarantee __). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter).

8. In other jurisdictions and states where the Director is not authorized to administer the financial requirements of Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: __.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148, or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: __.

This firm (insert "is required" or "is not required") to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on (month, day). The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended (date).

(Fill in Alternative I if the criteria of Subsection R315-261-143(e)(1)(i) are used. Fill in Alternative II if the criteria of Subsection R315-261-143(e)(1)(ii) are used.)

Alternative I

1. Sum of current cost estimates (total of all cost estimates shown in the nine paragraphs above) $__

*2. Total liabilities (if any portion of the cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4) $__

*3. Tangible net worth $____

*4. Net worth $____-

*5. Current assets $____

*6. Current liabilities $____

7. Net working capital (line 5 minus line 6) $____

*8. The sum of net income plus depreciation, depletion, and amortization $____-

*9. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____-

10. Is line 3 at least $10 million? (Yes/No) ____

11. Is line 3 at least 6 times line 1? (Yes/No) ____-

12. Is line 7 at least 6 times line 1? (Yes/No) ____-

*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14 (Yes/No) ____

14. Is line 9 at least 6 times line 1? (Yes/No) ____-

15. Is line 2 divided by line 4 less than 2.0? (Yes/No) ____-

16. Is line 8 divided by line 2 greater than 0.1? (Yes/No) ____-

17. Is line 5 divided by line 6 greater than 1.5? (Yes/No) ____-

Alternative II

1. Sum of current cost estimates (total of all cost estimates shown in the eight paragraphs above) $____-

2. Current bond rating of most recent issuance of this firm and name of rating service ____-

3. Date of issuance of bond ____-

4. Date of maturity of bond ____-

*5. Tangible net worth (if any portion of the cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line) $____-

*6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____-

7. Is line 5 at least $10 million? (Yes/No) ____

8. Is line 5 at least 6 times line 1? (Yes/No) ____

*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10 (Yes/No) ____

10. Is line 6 at least 6 times line 1? (Yes/No) ____-

I hereby certify that the wording of this letter is identical to the wording specified in Subsection R315-261-151(e) as such rules were constituted on the date shown immediately below.

(Signature) (Name) (Title) (Date)

(f) A letter from the chief financial officer, as specified in Subsection R315-261-147(f), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted.

Letter From Chief Financial Officer

Director

Division of Waste Management and Radiation Control

P.O. 144880

Salt Lake City, Utah 84114-4880

I am the chief financial officer of (firm's name and address). This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage under Section R315-261-147(insert "and costs assured Subsection R315-261-143(e)" if applicable) as specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151.

(Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number (if any issued), name, and address).

The firm identified above is the owner or operator of the following facilities for which liability coverage for (insert "sudden" or "nonsudden" or "both sudden and nonsudden") accidental occurrences is being demonstrated through the financial test specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151:____

The firm identified above guarantees, through the guarantee specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151, liability coverage for (insert "sudden" or "nonsudden" or "both sudden and nonsudden") accidental occurrences at the following facilities owned or operated by the following: ____-. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee -____; or (3) engaged in the following substantial business relationship with the owner or operator ____-, and receiving the following value in consideration of this guarantee ____-). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.)

The firm identified above is the owner or operator of the following facilities for which liability coverage for (insert "sudden" or "nonsudden" or "both sudden and nonsudden") accidental occurrences is being demonstrated through the financial test specified in Sections R315-264-140 through R315-264-151 and R315-265-140 through R315-265-148:____

The firm identified above guarantees, through the guarantee specified in Sections R315-264-140 through R315-264-151 and R315-265-140 through R315-265-148, liability coverage for (insert "sudden" or "nonsudden" or "both sudden and nonsudden") accidental occurrences at the following facilities owned or operated by the following: __. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee __; or (3) engaged in the following substantial business relationship with the owner or operator __, and receiving the following value in consideration of this guarantee __). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.)

(If you are using the financial test to demonstrate coverage of both liability and costs assured under Subsection R315-261-143(e) or closure or post-closure care costs under Section R315-264-143; R315-264-145; R315-265-143 or R315-265-145; fill in the following nine paragraphs regarding facilities and associated cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA and state identification number (if any issued), name, address, and current cost estimates.)

1. This firm is the owner or operator of the following facilities for which financial assurance is demonstrated through the financial test specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151. The current cost estimates covered by the test are shown for each facility:____.

2. This firm guarantees, through the guarantee specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151, the following facilities owned or operated by the guaranteed party. The current cost estimates so guaranteed are shown for each facility:____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee____, or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee____). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter).

3. In all other states this firm, as owner or operator or guarantor, is demonstrating financial assurance for the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151. The current cost estimates covered by such a test are shown for each facility:____.

4. This firm is the owner or operator of the following hazardous secondary materials management facilities for which financial assurance is not demonstrated either to EPA or a state through the financial test or any other financial assurance mechanism specified in Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151 or equivalent or substantially equivalent state mechanisms. The current cost estimates not covered by such financial assurance are shown for each facility:____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:____.

6. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Sections R315-264-140 through R315-264-151 and R315-265-140 through R315-265-148. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: ____.

7. This firm guarantees, through the guarantee specified in Sections R315-264-140 through R315-264-151 and R315-265-140 through R315-265-148; the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ____; or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee ____).

(Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter).

8. In other jurisdictions, and states where the Director is not authorized to administer the financial requirements of Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-264-140 through R315-264-151 and R315-265-140 through R315-265-148. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: ____.

9. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a state through the financial test or any other financial assurance mechanism specified in Sections R315-264-140 through R315-264-151 and R315-265-140 through R315-265-148, or equivalent or substantially equivalent state mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: ____.

This firm (insert "is required" or "is not required") to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on (month, day). The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended (date).

Part A. Liability Coverage for Accidental Occurrences

(Fill in Alternative I if the criteria of Subsection R315-261-147(f)(1)(i) are used. Fill in Alternative II if the criteria of Subsection R315-261-147(f)(1)(ii) are used.)

Alternative I

1. Amount of annual aggregate liability coverage to be demonstrated $____-.
*2. Current assets $____-.
*3. Current liabilities $____-.
4. Net working capital (line 2 minus line 3) $____-.
*5. Tangible net worth $____-.
*6. If less than 90% of assets are located in the U.S., give total U.S. assets $____-.
7. Is line 5 at least $10 million? (Yes/No) ____-.
8. Is line 4 at least 6 times line 1? (Yes/No) ____-.
9. Is line 5 at least 6 times line 1? (Yes/No) ____-.
*10. Are at least 90% of assets located in the U.S.? (Yes/No) ____. If not, complete line 11.
11. Is line 6 at least 6 times line 1? (Yes/No) ____.

Alternative II

1. Amount of annual aggregate liability coverage to be demonstrated $____-.
2. Current bond rating of most recent issuance and name of rating service ____-____-.
3. Date of issuance of bond _____---.
4. Date of maturity of bond _____---.
*5. Tangible net worth $____-.
*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____-.
7. Is line 5 at least $10 million? (Yes/No) ____-.
8. Is line 5 at least 6 times line 1? ____-.
9. Are at least 90% of assets located in the U.S.? If not, complete line 10. (Yes/No) __.
10. Is line 6 at least 6 times line 1? ____-.

(Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and costs assured under Subsection R315-261-143(e) or closure or post-closure care costs under Section R315-264-143; R315-264-145; R315-265-143 or R315-265-145.)

Part B. Facility Care and Liability Coverage

(Fill in Alternative I if the criteria of Subsection R315-261-143(e)(1)(i) and Subsection R315-261-147(f)(1)(i) are used. Fill in Alternative II if the criteria of Subsection R315-261-143(e)(1)(ii) and Subsection R315-261-147(f)(1)(ii) are used.)

Alternative I

1. Sum of current cost estimates (total of all cost estimates listed above) $____-
2. Amount of annual aggregate liability coverage to be demonstrated $____-
3. Sum of lines 1 and 2 $____

*4. Total liabilities (if any portion of your cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6) $____-

*5. Tangible net worth $____

*6. Net worth $____-

*7. Current assets $____

*8. Current liabilities $____

9. Net working capital (line 7 minus line 8) $____

*10. The sum of net income plus depreciation, depletion, and amortization $____-

*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____

12. Is line 5 at least $10 million? (Yes/No)

13. Is line 5 at least 6 times line 3? (Yes/No)

14. Is line 9 at least 6 times line 3? (Yes/No)

*15. Are at least 90% of assets located in the U.S.? (Yes/No) If not, complete line 16.

16. Is line 11 at least 6 times line 3? (Yes/No)

17. Is line 4 divided by line 6 less than 2.0? (Yes/No)

18. Is line 10 divided by line 4 greater than 0.1? (Yes/No)

19. Is line 7 divided by line 8 greater than 1.5? (Yes/No)

Alternative II

1. Sum of current cost estimates (total of all cost estimates listed above) $____-

2. Amount of annual aggregate liability coverage to be demonstrated $____-

3. Sum of lines 1 and 2 $____

4. Current bond rating of most recent issuance and name of rating service _____-

5. Date of issuance of bond _____---

6. Date of maturity of bond _____---

*7. Tangible net worth (if any portion of the cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line) $____-

*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.) $____-

9. Is line 7 at least $10 million? (Yes/No)

10. Is line 7 at least 6 times line 3? (Yes/No)

*11. Are at least 90% of assets located in the U.S.? (Yes/No) If not complete line 12.

12. Is line 8 at least 6 times line 3? (Yes/No)

I hereby certify that the wording of this letter is identical to the wording specified in Subsection R315-261-151(f) as such rules were constituted on the date shown immediately below.

(Signature)

(Name)

(Title)

(Date)

(g)(1) A corporate guarantee, as specified in Subsection R315-261-143(e), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Corporate Guarantee for Facility Care

Guarantee made this (date) by (name of guaranteeing entity), a business corporation organized under the laws of the State of (insert name of State), herein referred to as guarantor. This guarantee is made on behalf of the (owner or operator) of (business address), which is (one of the following: "our subsidiary"; "a subsidiary of (name and address of common parent corporation), of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in Subsections R315-264-141(h) and R315-265-141(h)," to the Director of the Utah Division of Waste Management and Radiation Control (the Director).

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Subsection R315-261-143(e).

2. (Owner or operator) owns or operates the following facility(ies) covered by this guarantee: (List for each facility: EPA and state Identification Number (if any issued), name, and address.

3. "Closure plans" as used below refer to the plans maintained as required by Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151 for the care of facilities as identified above.

4. For value received from (owner or operator), guarantor guarantees that in the event of a determination by the Director that the hazardous secondary materials at the owner or operator's facility covered by this guarantee do not meet the conditions of the exclusion under Subsection R315-261-4(a)(24), the guarantor shall dispose of any hazardous secondary material as hazardous waste, and close the facility in accordance with closure requirements found in Sections R315-264-110 through R315-264-120 or R315-265-110 through R315-265-121 as applicable, or establish a trust fund as specified in Subsection R315-261-143(a) in the name of the owner or operator in the amount of the current cost estimate.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Director and to (owner or operator) that the Guarantor intends to provide alternate financial assurance as specified in Sections R315-261-140 through R315-261-143 and R315-261-147 though R315-261-151, as applicable, in the name of (owner or operator). Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless (owner or operator) has done so.

6. The guarantor agrees to notify the Director by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Director of a determination that guarantor no longer meets the financial test criteria or that the guarantor is disallowed from continuing as a guarantor, the guarantor shall establish alternate financial assurance as specified in of Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148, or Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151, as applicable, in the name of (owner or operator) unless (owner or operator) has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure plan, the extension or reduction of the time of performance, or any other modification or alteration of an obligation of the owner or operator pursuant to Rules R315-264, R315-265, or Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151.

9. Guarantor agrees to remain bound under this guarantee for as long as (owner or operator) shall comply with the applicable financial assurance requirements of Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148, or the financial assurance condition of Subsection R315-261-4(a)(24)(vi)(F) for the above-listed facilities, except as provided in paragraph 10 of this agreement.

10. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator):

Guarantor may terminate this guarantee by sending notice by certified mail to the Director and to (owner or operator), provided that this guarantee may not be terminated unless and until (the owner or operator) obtains, and the Director approves, alternate coverage complying with Section R315-261-143.

(Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator)

Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the Director and by (the owner or operator).

11. Guarantor agrees that if (owner or operator) fails to provide alternate financial assurance as specified in Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148, or Sections R315-261-140 through R315-261-143 and R315-261-147 R315-261-151, as applicable, and obtain written approval of such assurance from the Director within 90 days after a notice of cancellation by the guarantor is received by the Director from guarantor, guarantor shall provide such alternate financial assurance in the name of (owner or operator).

12. Guarantor expressly waives notice of acceptance of this guarantee by the Director or by (owner or operator). Guarantor also expressly waives notice of amendments or modifications of the closure plan and of amendments or modifications of the applicable requirements of Sections R315-264-140 through R315-264-151 or R315-265-140 through R315-265-148, or Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151.

I hereby certify that the wording of this guarantee is identical to the wording specified in Subsection R315-261-151(g)(1) as such rules were constituted on the date first above written.

Effective date: (Name of guarantor) (Authorized signature for guarantor) (Name of person signing) (Title of person signing) Signature of witness or notary:

(2) A guarantee, as specified in Subsection R315-261-147(g), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Guarantee for Liability Coverage

Guarantee made this (date) by (name of guaranteeing entity), a business corporation organized under the laws of (if incorporated within the United States insert "the State of ____-" and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the state of the principal place of business), herein referred to as guarantor. This guarantee is made on behalf of (owner or operator) of (business address), which is one of the following: "our subsidiary;" "a subsidiary of (name and address of common parent corporation), of which guarantor is a subsidiary;" or "an entity with which guarantor has a substantial business relationship, as defined in (either Subsection R315-264-141(h) or Subsection R315-265-141(h))", to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Subsection R315-261-147(g).

2. (Owner or operator) owns or operates the following facility(ies) covered by this guarantee: (List for each facility: EPA and state identification number (if any issued), name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each state.) This corporate guarantee satisfies RCRA third-party liability requirements for (insert "sudden" or "nonsudden" or "both sudden and nonsudden") accidental occurrences in above-named owner or operator facilities for coverage in the amount of (insert dollar amount) for each occurrence and (insert dollar amount) annual aggregate.

3. For value received from (owner or operator), guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or nonsudden) accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that (owner or operator) fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by (sudden and/or nonsudden) accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor shall satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which (insert owner or operator) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert owner or operator) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert owner or operator) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert owner or operator) arising from, and in the course of, employment by (insert owner or operator); or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert owner or operator). This exclusion applies:

(A) Whether (insert owner or operator) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert owner or operator);

(2) Premises that are sold, given away or abandoned by (insert owner or operator) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert owner or operator);

(4) Personal property in the care, custody or control of (insert owner or operator);

(5) That particular part of real property on which (insert owner or operator) or any contractors or subcontractors working directly or indirectly on behalf of (insert owner or operator) are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Director and to (owner or operator) that the guarantor intends to provide alternate liability coverage as specified in Section R315-261-147, as applicable, in the name of (owner or operator). Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless (owner or operator) has done so.

6. The guarantor agrees to notify the Director by certified mail of a voluntary or involuntary proceeding under title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding. Guarantor agrees that within 30 days after being notified by the Director of a determination that guarantor no longer meets the financial test criteria or that the guarantor is disallowed from continuing as a guarantor, the guarantor shall establish alternate liability coverage as specified in Section R315-261-147 in the name of (owner or operator), unless (owner or operator) has done so.

7. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by Section R315-261-147, provided that such modification shall become effective only if the Director does not disapprove the modification within 30 days of receipt of notification of the modification.

8. Guarantor agrees to remain bound under this guarantee for so long as (owner or operator) shall comply with the applicable requirements of Section R315-261-147 for the above-listed facility(ies), except as provided in paragraph 10 of this agreement.

9. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator): Guarantor may terminate this guarantee by sending notice by certified mail to the Director and to (owner or operator), provided that this guarantee may not be terminated unless and until (the owner or operator) obtains, and the Director approves, alternate liability coverage complying with Section R315-261-147.

(Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator):

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the Director and by (the owner or operator).

10. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

11. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

12. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert Principal) and (insert name and address of third-party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Principal's) facility should be paid in the amount of $.

(Signatures) Principal (Notary) Date (Signatures) Claimant(s) (Notary) Date

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee shall be considered (insert "primary" or "excess") coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in Subsection R315-261-151(g)(2) as such rules were constituted on the date shown immediately below.

Effective date:

(Name of guarantor) (Authorized signature for guarantor)

(Name of person signing) (Title of person signing) Signature of witness or notary:

(h) A hazardous waste facility liability endorsement as required by Section R315-261-147 shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Hazardous Secondary Material Reclamation/Intermediate Facility Liability Endorsement

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under Section R35-261-147. The coverage applies at (list EPA and state Identification Number (if any issued), name, and address for each facility) for (insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both). The limits of liability are (insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability), exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Subsection R315-261-147(f).

(c) Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control (the Director), the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the facility, shall be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Director.

(e) Any other termination of this endorsement shall be effective only upon written notice and only after the expiration of 30 days after a copy of such written notice is received by the Director.

Attached to and forming part of policy No. __ issued by (name of Insurer), herein called the Insurer, of (address of Insurer) to (name of insured) of (address) this _____ day of _____, 20__. The effective date of said policy is _____ day of _____, 20__.

I hereby certify that the wording of this endorsement is identical to the wording specified in Subsection R315-261-151(h) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

(Signature of Authorized Representative of Insurer)

(Type name)

(Title), Authorized Representative of (name of Insurer)

(Address of Representative)

(i) A certificate of liability insurance as required in Section R315-261-147 shall be worded as follows, except that the instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Hazardous Secondary Material Reclamation/Intermediate Facility Certificate of Liability Insurance

1. (Name of Insurer), (the "Insurer"), of (address of Insurer) hereby certifies that it has issued liability insurance covering bodily injury and property damage to (name of insured), (the "insured"), of (address of insured) in connection with the insured's obligation to demonstrate financial responsibility under Rules R315-264 and R315-265, and the financial assurance condition of Subsection R315-261-4(a)(24)(vi)(F). The coverage applies at (list EPA and state Identification Number (if any issued), name, and address for each facility) for (insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both). The limits of liability are (insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability), exclusive of legal defense costs. The coverage is provided under policy number, issued on (date). The effective date of said policy is (date).

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Section R315-261-147.

(c) Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control (the Director), the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, shall be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Director.

(e) Any other termination of the insurance shall be effective only upon written notice and only after the expiration of 30 days after a copy of such written notice is received by the Director.

I hereby certify that the wording of this instrument is identical to the wording specified in Subsection R315-261-151(i) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states.

(Signature of authorized representative of Insurer)

(Type name)

(Title), Authorized Representative of (name of Insurer)

(Address of Representative)

(j) A letter of credit, as specified in Subsection R315-261-147(h) of this chapter, shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Irrevocable Standby Letter of Credit

(Name and Address of Issuing Institution)

(Director name), Director,

Division of Waste Management and Radiation Control

195 North 1950 West

P.O Box 144880

Salt Lake City, Utah 84114-4880

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. ____----- in the favor of ("any and all third-party liability claimants" or insert name of trustee of the standby trust fund), at the request and for the account of (owner or operator's name and address) for third-party liability awards or settlements up to (in words) U.S. dollars $____----- per occurrence and the annual aggregate amount of (in words) U.S. dollars $_---, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of (in words) U.S. dollars $____----- per occurrence, and the annual aggregate amount of (in words) U.S. dollars $____-----, for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to this letter of credit No. ____-----, and (insert the following language if the letter of credit is being used without a standby trust fund: (1) a signed certificate reading as follows:

Certificate of Valid Claim

The undersigned, as parties (insert principal) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operations of (principal's) facility should be paid in the amount of $( ). We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which (insert principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert principal) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert principal) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert principal) arising from, and in the course of, employment by (insert principal); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert principal).

This exclusion applies:

(A) Whether (insert principal) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert principal);

(2) Premises that are sold, given away or abandoned by (insert principal) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert principal);

(4) Personal property in the care, custody or control of (insert principal);

(5) That particular part of real property on which (insert principal) or any contractors or subcontractors working directly or indirectly on behalf of (insert principal) are performing operations, if the property damage arises out of these operations.

(Signatures)

Grantor

(Signatures)

Claimant(s)

or (2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.)

This letter of credit is effective as of (date) and shall expire on (date at least one year later), but such expiration date shall be automatically extended for a period of (at least one year) on (date and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the Director, and (owner's or operator's name) by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

(Insert the following language if a standby trust fund is not being used: "In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered (insert "primary" or "excess" coverage)."

We certify that the wording of this letter of credit is identical to the wording specified in Subsection R315-261-151(j) as such rules were constituted on the date shown immediately below.

(Signature(s)

and title(s) of official(s) of issuing institution)

(Date).

This credit is subject to (insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code").

(k) A surety bond, as specified in Subsection R315-261-147(i), shall be worded as follows: except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Payment Bond

Surety Bond No. (Insert number)

Parties (Insert name and address of owner or operator), Principal, incorporated in (Insert state of incorporation) of (Insert city and state of principal place of business) and (Insert name and address of surety company(ies)), Surety Company(ies), of (Insert surety(ies) place of business).

(EPA and state Identification Number (if any issued), name, and address for each facility guaranteed by this bond:) __

Table		
Nonsudden		
Sudden Accidental		
Accidental		
Occurrences		
Occurrences		
Penal Sum Per Occurrence	Insert Amount	Insert Amount
Annual Aggregate	Insert Amount	Insert Amount

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its(their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties caused by ("sudden" and/or "nonsudden") accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 3004 of the Resource Conservation and Recovery Act of 1976, as amended.

(2) Rules adopted by the Utah Waste Management and Radiation Control Board, particularly Rules R315-264; R315-265; and Sections R315-261-140 through R315-261-143 and R315-261-147 through R315-261-151 (if applicable).

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by ("sudden" and/or "nonsudden") accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which (insert Principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Principal) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Principal) under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of (insert Principal) arising from, and in the course of, employment by (insert principal); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Principal). This exclusion applies:

(A) Whether (insert Principal) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Principal);

(2) Premises that are sold, given away or abandoned by (insert Principal) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert Principal);

(4) Personal property in the care, custody or control of (insert Principal);

(5) That particular part of real property on which (insert Principal) or any contractors or subcontractors working directly or indirectly on behalf of (insert Principal) are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal will satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert name of Principal) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Principal's) facility should be paid in the amount of $( ).

(Signature)

Principal

(Notary) Date

(Signature(s))

Claimant(s)

(Notary) Date

or (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond shall be considered (insert "primary" or "excess") coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Director forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the Director, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Director, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the Director.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from (insert date) (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-261-151(k), as such rules were constituted on the date this bond was executed.

PRINCIPAL

(Signature(s))

(Name(s))

(Title(s))

(Corporate Seal)

CORPORATE SURETY(IES)

(Name and address)
State of incorporation: Liability Limit: $(Signature(s))
(Name(s) and title(s))
(Corporate seal)
(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)
Bond premium: $

(l)(1) A trust agreement, as specified in Subsection R315-261-147(j), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of (date) by and between (name of the owner or operator) a (name of State) (insert "corporation," "partnership," "association," or "proprietorship"), the "Grantor," and (name of corporate trustee), (insert, "incorporated in the State of ____" or "a national bank"), the "trustee."

Whereas, the Waste Management and Radiation Control Board of the State of Utah, "the Board", has established certain rules applicable to the Grantor, requiring that an owner or operator shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "BOARD", "Utah Waste Management and Radiation Control Board" created pursuant to Utah Code Section 19-1-106.

(b) The term "Director" means the Director, of the Division of Waste Management and Radiation Control, his successors, designees, and any subsequent entity of Utah upon whom the duties of regulation and enforcement of rules governing hazardous waste.

(c) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(d) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A (on schedule A, for each facility list the EPA and state Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of ____-(up to $1 million) per occurrence and (up to $2 million) annual aggregate for sudden accidental occurrences and ____ (up to $3 million) per occurrence and ____-(up to $6 million) annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which (insert Grantor) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Grantor) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Grantor) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert Grantor) arising from, and in the course of, employment by (insert Grantor); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Grantor). This exclusion applies:

(A) Whether (insert Grantor) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Grantor);

(2) Premises that are sold, given away or abandoned by (insert Grantor) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert Grantor);

(4) Personal property in the care, custody or control of (insert Grantor);

(5) That particular part of real property on which (insert Grantor) or any contractors or subcontractors working directly or indirectly on behalf of (insert Grantor) are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered (insert "primary" or "excess") coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by Director.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents;

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert Grantor) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Grantor's) facility or group of facilities should be paid in the amount of $( ).

(Signatures)
Grantor
(Signatures)
Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge the Trustee's duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held unless they are securities or other obligations of the federal or a state government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or state government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Director shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The

Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Director to the Trustee shall be in writing, signed by the Director, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equaling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the Director.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The Director shall agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Utah.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-261-151(l) as such rules were constituted on the date first above written.

(Signature of Grantor)

(Title)

Attest:

(Title)

(Seal)

(Signature of Trustee)

Attest:

(Title)

(Seal)

(2) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a trust fund as specified in Subsection R315-261-147(j). State requirements may differ on the proper content of this acknowledgement.

State of

County of

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

(m)(1) A standby trust agreement, as specified in Subsection R315-261-147(h), shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Standby Trust Agreement

Trust Agreement, the "Agreement," entered into as of (date) by and between (name of the owner or operator) a (name of a State) (insert "corporation," "partnership," "association," or "proprietorship"), the "Grantor," and (name of corporate trustee), (insert, "incorporated in the State of _____" or "a national bank"), the "trustee."

Whereas the Utah Waste Management and Radiation Control Board (Board), has established certain rules applicable to the Grantor, requiring that an owner or operator shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Board", "Utah Waste Management and Radiation Control Board" created pursuant to Utah Code Section 19-1-106.

(b) The term "Director" means the Director of the Division of Waste Management and Radiation Control, his successors, designees, and any subsequent entity of Utah upon whom the duties of regulation and enforcement of rules governing hazardous waste.

(c) The term Grantor means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(d) The term Trustee means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This Agreement pertains to the facilities identified on attached schedule A (on schedule A, for each facility list the EPA and state Identification Number (if any issued), name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of ____-(up to $1 million) per occurrence and ____-(up to $2 million) annual aggregate for sudden accidental occurrences and ____-(up to $3 million) per occurrence and ____-(up to $6 million) annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which (insert Grantor) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Grantor) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Grantor) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert Grantor) arising from, and in the course of, employment by (insert Grantor); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Grantor).

This exclusion applies:

(A) Whether (insert Grantor) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Grantor);

(2) Premises that are sold, given away or abandoned by (insert Grantor) if the property damage arises out of any part of those premises;

(3) Property loaned by (insert Grantor);

(4) Personal property in the care, custody or control of (insert Grantor);

(5) That particular part of real property on which (insert Grantor) or any contractors or subcontractors working directly or indirectly on behalf of (insert Grantor) are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the Fund shall be considered (insert "primary" or "excess") coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Director.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert Grantor) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Grantor's) facility should be paid in the amount of $( )

(Signature)

Grantor

(Signatures)

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of Subsection R315-261-151(k) and Section 4 of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the federal or a state government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the federal or a state government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The Director shall agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Utah.

Section 18. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-261-151(m) as such rules were constituted on the date first above written.

(Signature of Grantor)

(Title)

Attest:

(Title)

(Seal)
(Signature of Trustee)
Attest:
(Title)
(Seal)

(2) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a standby trust fund as specified in Subsection R315-261-147(h).

State of
County of

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

R315-261-170. Use and Management of Containers - Applicability.

Sections R315-261-170 through 179 apply to hazardous secondary materials excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27) and stored in containers.

R315-261-171. Use and Management of Containers - Condition of Containers.

If a container holding hazardous secondary material is not in good condition, e.g., severe rusting, apparent structural defects, or if it begins to leak, the hazardous secondary material shall be transferred from this container to a container that is in good condition or managed in some other way that complies with the requirements of Rule R315-261.

R315-261-172. Use and Management of Containers - Compatibility Of Hazardous Secondary Materials With Containers.

The container shall be made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous secondary material to be stored, so that the ability of the container to contain the material is not impaired.

R315-261-173. Use and Management of Containers - Management of Containers.

(a) A container holding hazardous secondary material shall always be closed during storage, except when it is necessary to add or remove the hazardous secondary material.

(b) A container holding hazardous secondary material shall not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

R315-261-175. Use and Management of Containers - Containment.

(a) Container storage areas shall have a containment system that is designed and operated in accordance with Subsection R315-261-175(b).

(b) A containment system shall be designed and operated as follows:

(1) A base shall underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

(2) The base shall be sloped or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

(3) The containment system shall have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater.

(4) Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity in addition to that required in Subsection R315-261-175(b)(3) to contain any run-on which might enter the system; and

(5) Spilled or leaked material and accumulated precipitation shall be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

R315-261-176. Use and Management of Containers - Special Requirements for Ignitable or Reactive Hazardous Secondary Material.

Containers holding ignitable or reactive hazardous secondary material shall be located at least 15 meters (50 feet) from the facility's property line.

R315-261-177. Use and Management of Containers - Special Requirements for Incompatible Materials.

(a) Incompatible materials shall not be placed in the same container.

(b) Hazardous secondary material shall not be placed in an unwashed container that previously held an incompatible material.

(c) A storage container holding a hazardous secondary material that is incompatible with any other materials stored nearby shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

R315-261-179. Use and Management of Containers - Air Emission Standards.

The remanufacturer or other person that stores or treats the hazardous secondary material shall manage all hazardous secondary material placed in a container in accordance with the applicable requirements of Sections R315-261-1030 through 1035, 1050 through 1064 and 1080 through 1089.

R315-261-190. Tank Systems - Applicability.

(a) The requirements of Sections R315-261-190 through 200 apply to tank systems for storing or treating hazardous secondary material excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27).

(b) Tank systems, including sumps, as defined in Section R315-260-10, that serve as part of a secondary containment system to collect or contain releases of hazardous secondary materials are exempted from the requirements in Subsection R315-261-193(a).

R315-261-191. Tank Systems - Assessment of Existing Tank System's Integrity.

(a) Tank systems shall meet the secondary containment requirements of Section R315-261-193, or the remanufacturer or other person that handles the hazardous secondary material shall determine that the tank system is not leaking or is unfit for use. Except as provided in Subsection R315-261-191(c), a written assessment reviewed and certified by a qualified Professional Engineer shall be kept on file at the remanufacturer's facility or other facility that stores or treats the hazardous secondary material that attests to the tank system's integrity.

(b) This assessment shall determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the material(s) to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

(1) Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

(2) Hazardous characteristics of the material(s) that have been and will be handled;

(3) Existing corrosion protection measures;

(4) Documented age of the tank system, if available, otherwise, an estimate of the age; and

(5) Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, the assessment shall include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects, and

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment shall include either a leak test, as described above, or other integrity examination that is certified by a qualified Professional Engineer that addresses cracks, leaks, corrosion, and erosion.

Note to Subsection R315-261-191(b)(5)(ii): The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines in conducting other than a leak test.

(c) If, as a result of the assessment conducted in accordance with Subsection R315-261-191(a), a tank system is found to be leaking or unfit for use, the remanufacturer or other person that stores or treats the hazardous secondary material shall comply with the requirements of Section R315-261-196.

R315-261-193. Tank Systems - Containment and Detection of Releases.

(a) Secondary containment systems shall be:

(1) Designed, installed, and operated to prevent any migration of materials or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

Note to Subsection R315-261-193(a): If the collected material is a hazardous waste under Rule R315-261, it is subject to management as a hazardous waste in accordance with all applicable requirements of Rules R315-262 through 265, 266, and 268. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302.

(b) To meet the requirements of Subsection R315-261-193(a), secondary containment systems shall be at a minimum:

(1) Constructed of or lined with materials that are compatible with the materials(s) to be placed in the tank system and shall have sufficient strength and thickness to prevent failure owing to pressure gradients, including static head and external hydrological forces, physical contact with the material to which it is exposed, climatic conditions, and the stress of daily operation, (including stresses from nearby vehicular traffic;

(2) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;

(3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous secondary material or accumulated liquid in the secondary containment system at the earliest practicable time; and

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked material and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Secondary containment for tanks shall include one or more of the following devices:

(1) A liner, external to the tank;

(2) A vault; or

(3) A double-walled tank.

(d) In addition to the requirements of Subsections R315-261-193(a), (b), and (c), secondary containment systems shall satisfy the following requirements:

(1) External liner systems shall be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(iii) Free of cracks or gaps; and

(iv) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the material if the material is released from the tank(s), i.e., capable of preventing lateral as well as vertical migration of the material.

(2) Vault systems shall be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Constructed with chemical-resistant water stops in place at all joints, if any;

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored material and that will prevent migration of material into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the material being stored or treated is ignitable or reactive; and

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

(3) Double-walled tanks shall be:

(i) Designed as an integral structure, i.e., an inner tank completely enveloped within an outer shell, so that any release from the inner tank is contained by the outer shell;

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and

(iii) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time.

Note to Subsection R315-261-193(d)(3): The provisions outlined in the Steel Tank Institute's (STI) "Standard for Dual Wall Underground Steel Storage Tanks" may be used as guidelines for aspects of the design of underground steel double-walled tanks.

(e) Reserved

(f) Ancillary equipment shall be provided with secondary containment, e.g., trench, jacketing, double-walled piping, that meets the requirements of Subsections R315-261-193(a) and (b) except for:

(1) Aboveground piping, exclusive of flanges, joints, valves, and other connections, that are visually inspected for leaks on a daily basis;

(2) Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;

(3) Sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

(4) Pressurized aboveground piping systems with automatic shut-off devices, e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices, that are visually inspected for leaks on a daily basis.

R315-261-194. Tank Systems - General Operating Requirements.

(a) Hazardous secondary materials or treatment reagents shall not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include at a minimum:

(1) Spill prevention controls, e.g., check valves, dry disconnect couplings;

(2) Overfill prevention controls, e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank; and

(3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) The remanufacturer or other person that stores or treats the hazardous secondary material shall comply with the requirements of Section R315-261-196 if a leak or spill occurs in the tank system.

R315-261-196. Tank Systems - Response To Leaks or Spills and Disposition of Leaking or Unfit-For-Use Tank Systems.

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, shall be removed from service immediately, and the remanufacturer or other person that stores or treats the hazardous secondary material shall satisfy the following requirements:

(a) Cessation of use; prevent flow or addition of materials. The remanufacturer or other person that stores or treats the hazardous secondary material shall immediately stop the flow of hazardous secondary material into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) Removal of material from tank system or secondary containment system.

(1) If the release was from the tank system, the remanufacturer or other person that stores or treats the hazardous secondary material shall, within 24 hours after detection of the leak or, if the remanufacturer or other person that stores or treats the hazardous secondary material demonstrates that it is not possible, at the earliest practicable time, remove as much of the material as is necessary to prevent further release of hazardous secondary material to the environment and to allow inspection and repair of the tank system to be performed.

(2) If the material released was to a secondary containment system, all released materials shall be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Containment of visible releases to the environment. The remanufacturer or other person that stores or treats the hazardous secondary material shall immediately conduct a visual inspection of the release and, based upon that inspection:

(1) Prevent further migration of the leak or spill to soils or surface water; and

(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) Notifications, reports.

(1) Any release to the environment, except as provided in Subsection R315-261-196(d)(2), shall be reported to the Director within 24 hours of its detection. If the release has been reported pursuant to 40 CFR part 302, that report will satisfy this requirement.

(2) A leak or spill of hazardous secondary material is exempted from the requirements of Subsection R315-261-196(d) if it is:

(i) Less than or equal to a quantity of 1 pound, and

(ii) Immediately contained and cleaned up.

(3) Within 30 days of detection of a release to the environment, a report containing the following information shall be submitted to the Director:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil, soil composition, geology, hydrogeology, climate;

(iii) Results of any monitoring or sampling conducted in connection with the release, if available. If sampling or monitoring data relating to the release are not available within 30 days, these data shall be submitted to the Director as soon as they become available.

(iv) Proximity to downgradient drinking water, surface water, and populated areas; and

(v) Description of response actions taken or planned.

(e) Provision of secondary containment, repair, or closure.

(1) Unless the remanufacturer or other person that stores or treats the hazardous secondary material satisfies the requirements of Subsections R315-261-196(e)(2) through (4), the tank system shall cease to operate under the remanufacturing exclusion at Subsection R315-261-4(a)(27).

(2) If the cause of the release was a spill that has not damaged the integrity of the system, the remanufacturer or other person that stores or treats the hazardous secondary material may return the system to service as soon as the released material is removed and repairs, if necessary, are made.

(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system shall be repaired prior to returning the tank system to service.

(4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the remanufacturer or other person that stores or treats the hazardous secondary material shall provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of Section R315-261-193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component shall be repaired and may be returned to service without secondary containment as long as the requirements of Subsection R315-261-196(f)

are satisfied. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection, e.g., the bottom of an inground or onground tank, the entire component shall be provided with secondary containment in accordance with Section R315-261-193 prior to being returned to use.

(f) Certification of major repairs. If the remanufacturer or other person that stores or treats the hazardous secondary material has repaired a tank system in accordance with Subsection R315-261-196(e), and the repair has been extensive, e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel, the tank system shall not be returned to service unless the remanufacturer or other person that stores or treats the hazardous secondary material has obtained a certification by a qualified Professional Engineer that the repaired system is capable of handling hazardous secondary materials without release for the intended life of the system. This certification shall be kept on file at the facility and maintained until closure of the facility.

Note 1 to Section R315-261-196: The Director may, on the basis of any information received that there is or has been a release of hazardous secondary material or hazardous constituents into the environment, issue an order under RCRA section 7003(a) requiring corrective action or such other response as deemed necessary to protect human health or the environment.

Note 2 to Section R315-261-196: 40 CFR part 302 may require the owner or operator to notify the National Response Center of certain releases.

R315-261-197. Tank Systems - Termination of Remanufacturing Exclusion.

Hazardous secondary material stored in units more than 90 days after the unit ceases to operate under the remanufacturing exclusion at Subsection R315-261-4(a)(27) or otherwise ceases to be operated for manufacturing, or for storage of a product or a raw material, then becomes subject to regulation as hazardous waste under Rules R315-261 through 266, 268, 270, and 124, as applicable.

R315-261-198. Tank Systems - Special Requirements for Ignitable or Reactive Materials.

(a) Ignitable or reactive material shall not be placed in tank systems, unless the material is stored or treated in such a way that it is protected from any material or conditions that may cause the material to ignite or react.

(b) The remanufacturer or other person that stores or treats hazardous secondary material which is ignitable or reactive shall store or treat the hazardous secondary material in a tank that is in compliance with the requirements for the maintenance of protective distances between the material management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981), incorporated by reference, see Section R315-260-11.

R315-261-199. Tank Systems - Special Requirements for Incompatible Materials.

(a) Incompatible materials shall not be placed in the same tank system.

(b) Hazardous secondary material shall not be placed in a tank system that has not been decontaminated and that previously held an incompatible material.

R315-261-200. Tank Systems - Air Emission Standards.

The remanufacturer or other person that stores or treats the hazardous secondary material shall manage all hazardous secondary material placed in a tank in accordance with the applicable requirements of Sections R315-261-1030 through 1035, 1050 through 1064, and 1080 through 1089.

R315-261-400. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Applicability.

The requirements of Sections R315-261-400, R315-261-410, R315-261-411, and R315-261-420 apply to those areas of an entity managing hazardous secondary materials excluded under Subsections R315-261-4(a)(23) or R315-261-4(a)(24) or both where hazardous secondary materials are generated or accumulated on-site.

(a) A generator of hazardous secondary material, or an intermediate or reclamation facility, that accumulates 6000 kg or less of hazardous secondary material at any time shall comply with Sections R315-261-410 and R315-261-411.

(b) A generator of hazardous secondary material, or an intermediate or reclamation facility that accumulates more than 6000 kg of hazardous secondary material at any time shall comply with Sections R315-261-410 and R315-261-420.

R315-261-410. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Preparedness and Prevention.

(a) Maintenance and operation of facility. Facilities generating or accumulating hazardous secondary material shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous secondary materials or hazardous secondary material constituents to air, soil, or surface water that could threaten human health or the environment.

(b) Required equipment. Each facility generating or accumulating hazardous secondary material shall be equipped with the the items listed in Subsections R315-261-410(b)(1) through R315-261-410(b)(4), unless none of the hazards posed by hazardous secondary material handled at the facility could require a particular kind of equipment specified in Subsections R315-261-410(b)(1) through R315-261-410(b)(4):

(1) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility personnel;

(2) A device, such as a telephone, immediately available at the scene of operations, or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

(3) Portable fire extinguishers, fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals, spill control equipment, and decontamination equipment; and

(4) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(c) Testing and maintenance of equipment. The facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, if required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

(d) Access to communications or alarm system.

(1) If hazardous secondary material is being poured, mixed, spread, or otherwise handled, the personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under Subsection R315-261-410(b).

(2) If there is ever just one employee on the premises while the facility is operating, the employee shall have immediate access to a device, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under Subsection R315-261-410(b).

(e) Required aisle space. The hazardous secondary material generator or an intermediate or reclamation facility shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(f) Arrangements with local authorities.

(1) The hazardous secondary material generator or an intermediate or reclamation facility shall try to make the arrangements specified in Subsections R315-261-410(f)(1)(i) through R315-261-410(f)(1)(iv), as appropriate for the type of waste handled at their facility and the potential need for the services of these organizations:

(i) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous secondary material handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(ii) When more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(iii) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

(iv) Arrangements to familiarize local hospitals with the properties of hazardous secondary material handled at the facility and the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

(2) If state or local authorities decline to enter into these arrangements, the hazardous secondary material generator or an intermediate or reclamation facility shall document the refusal in the operating record.

R315-261-411. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Emergency Procedures for Facilities Generating or Accumulating 6000 Kg or Less of Hazardous Secondary Material.

A generator or an intermediate or reclamation facility that generates or accumulates 6000 kg or less of hazardous secondary material shall comply with the requirements in Subsections R315-261-411(a) through R315-261-411(d):

(a) There shall always be at least one employee either on the premises or on call, that is, available to respond to an emergency by reaching the facility within a short period, with the responsibility for coordinating emergency response measures specified in Subsection R315-261-411(d). This employee is the emergency coordinator.

(b) The generator or intermediate or reclamation facility shall post the information listed in Subsections R315-261-411(b)(1) through R315-261-411(b)(3) next to the telephone:

(1) The name and telephone number of the emergency coordinator;

(2) Location of fire extinguishers and spill control material, and, if present, fire alarm; and

(3) The telephone number of the fire department, unless the facility has a direct alarm.

(c) The generator or an intermediate or reclamation facility shall ensure that employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.

(d) The emergency coordinator or the emergency coordinator's designee shall respond to any emergencies that arise. The applicable responses are as follows:

(1) In the event of a fire, call the fire department or try to extinguish it using a fire extinguisher.

(2) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil.

(3) In the event of a fire, explosion, or other release that could threaten human health outside the facility or if the generator or an intermediate or reclamation facility has knowledge that a spill has reached surface water, the generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-31(d) shall immediately notify the National Response Center, using their 24-hour toll free number 800-424-8802. The report shall include the information listed in Subsections R315-261-411(d)(3)(i) through R315-261-411(d)(3)(v):

(i) The name, address, and U.S. EPA Identification Number of the facility;

(ii) Date, time, and type of incident, for example, spill or fire;

(iii) Quantity and type of hazardous waste involved in the incident;

(iv) Extent of injuries, if any; and

(v) Estimated quantity and disposition of recovered materials, if any.

R315-261-420. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Contingency Planning and Emergency Procedures for Facilities Generating or Accumulating More Than 6000 Kg of Hazardous Secondary Material.

A generator or an intermediate or reclamation facility that generates or accumulates more than 6000 kg of hazardous secondary material shall comply with the requirements in Subsections R315-261-420(a) through R315-261-420(g):

(a) Purpose and implementation of contingency plan.

(1) Each generator or an intermediate or reclamation facility that accumulates more than 6000 kg of hazardous secondary material shall have a contingency plan for their facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or nonsudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water.

(2) The provisions of the plan shall be carried out immediately if there is a fire, explosion, or release of hazardous secondary material or hazardous secondary material constituents that could threaten human health or the environment.

(b) Content of contingency plan.

(1) The contingency plan shall describe the actions facility personnel shall take to comply with Subsections R315-261-420(a) and R315-261-420(f) in response to fires, explosions, or any unplanned sudden or nonsudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water at the facility.

(2) If the generator or an intermediate or reclamation facility accumulating more than 6000 kg of hazardous secondary material has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112, or another emergency or contingency plan, the generator need only amend that plan to incorporate hazardous waste management provisions that are enough to comply with the requirements of

Rule R315-261. The hazardous secondary material generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-13(d) may develop one contingency plan that meets the regulatory requirements. The director recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). If modifications are made to non-hazardous waste provisions in an integrated contingency plan, the changes do not trigger the need for a hazardous waste permit modification.

(3) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services, pursuant to Subsection R315-261-410(f).

(4) The plan shall list names, addresses, and phone numbers, office and home, of each person qualified to act as emergency coordinator, see Subsection R315-261-420(e), and this list shall be kept up-to-date. If more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order that they shall assume responsibility as alternates.

(5) The plan shall include a list of the emergency equipment at the facility, such as fire extinguishing systems, spill control equipment, communications and alarm systems, internal and external, and decontamination equipment, if this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(6) The plan shall include an evacuation plan for facility personnel if there is a possibility that evacuation could be necessary. This plan shall describe signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by releases of hazardous waste or fires.

(c) Copies of contingency plan. A copy of the contingency plan and any revisions to the plan shall be:

(1) maintained at the facility; and

(2) submitted to each local police department, fire department, hospital, and state and local emergency response team that may be called upon to provide emergency services.

(d) Amendment of contingency plan. The contingency plan shall be reviewed, and immediately amended, if necessary, if:

(1) applicable rules are revised;

(2) the plan fails in an emergency;

(3) the facility changes-in its design, construction, operation, maintenance, or other circumstances-in a way that materially increases the potential for fires, explosions, or releases of hazardous secondary material or hazardous secondary material constituents, or changes the response necessary in an emergency;

(4) the list of emergency coordinators changes; or

(5) the list of emergency equipment changes.

(e) Emergency coordinator. There shall always be at least one employee either on the facility premises or on call, that is, available to respond to an emergency by reaching the facility within a short period, with the responsibility for coordinating emergency response measures. This emergency coordinator shall be thoroughly familiar with the aspects of the facility's contingency plan, the operations and activities at the facility, the location and characteristics of hazardous secondary material handled, the location of records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in Subsection R315-261-420(f). Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of hazardous secondary materials handled by the facility, and type and complexity of the facility.

(f) Emergency procedures.

(1) If there is an imminent or actual emergency situation, the emergency coordinator, or the emergency coordinator's designee if the emergency coordinator is on call, shall immediately:

(i) activate internal facility alarms or communication systems, if applicable, to notify the facility personnel; and

(ii) notify appropriate state or local agencies with designated response roles if their help is needed.

(2) If there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(3) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, for example, the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions.

(4) If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health, or the environment, outside the facility, the emergency coordinator shall report their findings as follows:

(i) If the emergency coordinator's assessment shows that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated; and

(ii) The emergency coordinator shall immediately notify the Utah Department of Environmental Quality 24 hour answering service at 801-536-4123, and the National Response Center, using their 24-hour toll free number 800-424-8802. The report shall include:

(A) name and telephone number of reporter;

(B) name and address of facility;

(C) time and type of incident, for example, release, fire;

(D) name and quantity of materials involved, to the extent known;

(E) the extent of injuries, if any; and

(F) the possible hazards to human health, or the environment, outside the facility.

(5) During an emergency, the emergency coordinator shall take any reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous secondary material at the facility. These measures shall include, if applicable, stopping processes and operations, collecting and containing released material, and removing or isolating containers.

(6) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, if this is appropriate.

(7) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered secondary material, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the hazardous secondary material generator can demonstrate, in accordance with Subsection R315-261-3(c) or R315-261-3(d), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with the applicable requirements of Rules R315-262, R315-263, and R315-265.

(8) The emergency coordinator shall ensure that, in the affected areas of the facility:

(i) no secondary material that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are finished; and

(ii) the emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(9) The hazardous secondary material generator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the hazardous secondary material generator shall submit a written report on the incident to the director. The report shall include:

(i) name, address, and telephone number of the hazardous secondary material generator;

(ii) name, address, and telephone number of the facility;

(iii) date, time, and type of incident, for example, fire, explosion;

(iv) name and quantity of materials involved;

(v) the extent of injuries, if any;

(vi) an assessment of actual or potential hazards to human health or the environment, if this applies; and

(vii) estimated quantity and disposition of recovered material that resulted from the incident.

(g) Personnel training. Each employee shall be thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

R315-261-1030. Air Emission Standards for Process Vents - Applicability.

The regulations in Sections R315-261-1030 through 1035 apply to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or stream stripping operations that manage hazardous secondary materials excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27) with concentrations of at least 10 ppmw, unless the process vents are equipped with operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63.

R315-261-1031. Air Emission Standards for Process Vents - Definitions.

(a) As used in Sections R315-261-1030 through 1035, all terms not defined herein shall have the meaning given them in the Resource Conservation and Recovery Act, the Utah Solid and Hazardous Waste Act, and Rules R315-260 through 266.

(1) "Air stripping operation" is a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

(2) "Bottoms receiver" means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

(3) "Closed-vent system" means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(4) "Condenser" means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

(5) "Connector" means flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

(6) "Continuous recorder" means a data-recording device recording an instantaneous data value at least once every 15 minutes.

(7) "Control device" means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale, e.g., a primary condenser on a solvent recovery unit, is not a control device.

(8) "Control device shutdown" means the cessation of operation of a control device for any purpose.

(9) "Distillate receiver" means a container or tank used to receive and collect liquid material, condensed, from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

(10) "Distillation operation" means an operation, either batch or continuous, separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(11) "Double block and bleed system" means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

(12) "Equipment" means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by Sections R315-261-1030 through 1035.

(13) "Flame zone" means the portion of the combustion chamber in a boiler occupied by the flame envelope.

(14) "Flow indicator" means a device that indicates whether gas flow is present in a vent stream.

(15) "First attempt at repair" means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

(16) "Fractionation operation" means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(17) "Hazardous secondary material management unit shutdown" means a work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous secondary material management unit or part of a hazardous secondary material management unit for less than 24 hours is not a hazardous secondary material management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous secondary material management unit shutdowns.

(18) "Hot well" means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

(19) "In gas/vapor service" means that the piece of equipment contains or contacts a hazardous secondary material stream that is in the gaseous state at operating conditions.

(20) "In heavy liquid service" means that the piece of equipment is not in gas/vapor service or in light liquid service.

(21) "In light liquid service" means that the piece of equipment contains or contacts a material stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20 degrees C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20 degrees C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

(22) "In situ sampling systems" means nonextractive samplers or in-line samplers.

(23) "In vacuum service" means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

(24) "Malfunction" means any sudden failure of a control device or a hazardous secondary material management unit or failure of a hazardous secondary material management unit to operate in a normal or usual manner, so that organic emissions are increased.

(25) "Open-ended valve or line" means any valve, except pressure relief valves, having one side of the valve seat in contact with hazardous secondary material and one side open to the atmosphere, either directly or through open piping.

(26) "Pressure release" means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

(27) "Process heater" means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

(28) "Process vent" means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank, e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well, associated with hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

(29) "Repaired" means that equipment is adjusted, or otherwise altered, to eliminate a leak.

(30) "Sampling connection system" means an assembly of equipment within a process or material management unit used during periods of representative operation to take samples of the process or material fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

(31) "Sensor" means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

(32) "Separator tank" means a device used for separation of two immiscible liquids.

(33) "Solvent extraction operation" means an operation or method of separation in which a solid or solution is contacted with a liquid solvent, the two being mutually insoluble, to preferentially dissolve and transfer one or more components into the solvent.

(34) "Startup" means the setting in operation of a hazardous secondary material management unit or control device for any purpose.

(35) "Steam stripping operation" means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

(36) "Surge control tank" means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

(37) "Thin-film evaporation operation" means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(38) "Vapor incinerator" means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

(39) "Vented" means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical" means such as compressors or vacuum-producing systems or by process-related" means such as evaporation produced by heating and not caused by tank loading and unloading, working losses, or by natural" means such as diurnal temperature changes.

R315-261-1032. Air Emission Standards for Process Vents - Process Vents.

(a) The remanufacturer or other person that stores or treats hazardous secondary materials in hazardous secondary material management units with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous secondary material with organic concentrations of at least 10 ppmw shall either:

(1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr), or

(2) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

(b) If the remanufacturer or other person that stores or treats the hazardous secondary material installs a closed-vent system and control device to comply with the provisions of Subsection R315-261-1032(a) the closed-vent system and control device shall meet the requirements of Section R315-261-1033.

(c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests shall conform with the requirements of Subsection R315-261-1034(c).

(d) When a remanufacturer or other person that stores or treats the hazardous secondary material and the Director do not agree on determinations of vent emissions and/or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures in Subsection R315-261-1034(c) shall be used to resolve the disagreement.

R315-261-1033. Air Emission Standards for Process Vents - Closed-Vent Systems and Control Devices.

(a)(1) The remanufacturer or other person that stores or treats the hazardous secondary materials in hazardous secondary material management units using closed-vent systems and control devices used to comply with Rule R315-261 shall comply with Section R315-261-1033.

(2) Reserved

(b) A control device involving vapor recovery, for example, a condenser or adsorber, shall be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Subsection R315-261-1032(a)(1) for the affected process vents can be attained at an efficiency less than 95 weight percent.

(c) An enclosed combustion device, for example, a vapor incinerator, boiler, or process heater, shall be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3% oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 deg. C. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(d)(1) A flare shall be designed for and operated with no visible emissions as determined by the methods specified in Subsection R315-261-1033(e)(1), except for periods not to exceed a total of five minutes during any two consecutive hours.

(2) A flare shall be operated with a flame always present, as determined by the methods specified in Subsection R315-261-1033(f)(2)(iii).

(3) A flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm, 300 Btu/scf, or greater if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm, 200 Btu/scf, or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in Subsection R315-261-1033(e)(2).

(4)(i) A steam-assisted or nonassisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-261-1033(e)(3), less than 18.3 m/s, 60 ft/s, except as provided in Subsections R315-261-1033(d)(4)(ii) and R315-261-1033(d)(4)(iii).

(ii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-261-1033(e)(3), equal to or greater than 18.3 m/s, 60 ft/s, but less than 122 m/s, 400 ft/s, is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm, 1,000 Btu/scf.

(iii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-261-1033(e)(3), less than the velocity, V_{max}, as determined by the method specified in Subsection R315-261-1033(e)(4) and less than 122 m/s, 400 ft/s is allowed.

(5) An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, V_{max}, as determined by the method specified in Subsection R315-261-1033(e)(5).

(6) A flare used to comply with Section R315-261-1033 shall be steam-assisted, air-assisted, or nonassisted.

(e)(1) Reference Method 22 in 40 CFR part 60 shall be used to determine the compliance of a flare with the visible emission requirements of Sections R315-261-1030 through R315-261-1035. The observation period is two hours and shall be used according to Method 22.

(2) The net heating value of the gas being combusted in a flare shall be calculated using the equation found in 40 CFR261.1033(e)(2) 2015 ed is incorporated by reference.

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 degrees C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mol is 20 degrees C;

K = Constant, 1.74 ℗ 10^{-7}, 1/ppm, g mol/scm, MJ/kcal, where standard temperature for g mol/scm is 20 deg. C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR part 60 and measured for hydrogen and carbon monoxide by ASTM D 1946-82, incorporated by reference as specified in Section R315-260-11; and

H_i = Net heat of combustion of sample component i, kcal/9 mol at 25 degrees C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83, incorporated by reference as specified in Section R315-260-11, if published values are not available or cannot be calculated.

(3) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate, in units of standard temperature and pressure, as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR part 60 as appropriate, by the unobstructed , free, cross-sectional area of the flare tip.

(4) The maximum allowed velocity in m/s, V_{max}, for a flare complying with Subsection R315-261-1033(d)(4)(iii) shall be determined by the following equation:

$Log_{10}(V_{max}) = (H_T + 28.8)/31.7$

Where:

28.8 = Constant;

31.7 = Constant;

H_T = The net heating value as determined in Subsection R315-261-1033(e)(2).

(5) The maximum allowed velocity in m/s, V_{max}, for an air-assisted flare shall be determined by the following equation:

$V_{max} = 8.706 + 0.7084 (H_T)$

Where:

8.706 = Constant;

0.7084 = Constant;

H_T = The net heating value as determined in Subsection R315-261-1033(e)(2).

(f) The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor and inspect each control device required to comply with Section R315-261-1033 to ensure proper operation and maintenance of the control device by implementing the requirements in Subsections R315-261-1033(f)(1) through R315-261-1033(f)(3):

(1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once each hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet but before the point that the vent streams are combined.

(2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified in Subsections R315-261-1033(f)(2)(i) through R315-261-1033(f)(2)(vii):

(i) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of plus or minus 1% of the temperature being monitored in degrees C or plus or minus 0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

(ii) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have an accuracy of plus or minus 1% of the temperature being monitored in degrees C or plus or minus 0.5 degrees C, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(iii) For a flare, a heat sensing monitoring device equipped with a continuous recorder that shows the continuous ignition of the pilot flame.

(iv) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of plus or minus 1% of the temperature being monitored in degrees C or plus or minus 0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone.

(v) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameters that shows good combustion operating practices are being used.

(vi) For a condenser, either:

(A) a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or

(B) a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of plus or minus 1% of the temperature being monitored in degrees Celsius, deg. C, or plus or minus 0.5 deg. C, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit, that is, product side.

(vii) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:

(A) a monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or

(B) a monitoring device equipped with a continuous recorder to measure a parameter that shows the carbon bed is regenerated on a regular, predetermined time cycle.

(3) Inspect the readings from each monitoring device required by Subsections R315-261-1033(f)(1) and R315-261-1033(f)(2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of Section R315-261-1033.

(g) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Subsection R315-261-1035(b)(4)(iii)(F).

(h) A remanufacturer or other person that stores or treats hazardous secondary material in a hazardous secondary material management unit using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the procedures in Subsections R315-261-1033(h)(1) through R315-261-1033(h)(2):

(1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately if carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than 20% of the time required to consume the total carbon working capacity established as a requirement of Subsection R315-261-1035(b)(4)(iii)(G), whichever is longer.

(2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Subsection R315-261-1035(b)(4)(iii)(G).

(i) An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter shall ensure that the control device is operated in conformance with these standards and the control device's design specifications.

(j) A remanufacturer or other person that stores or treats hazardous secondary material at an affected facility seeking to comply with Rule R315-261 by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system shall develop documentation including enough information to describe the control device operation and identify the process parameter or parameters that show proper operation and maintenance of the control device.

(k) A closed-vent system shall meet either of the design requirements in Subsection R315-261-1033(k)(1) or R315-261-1033(k)(2):

(1) A closed-vent system shall be designed to operate with no detectable emissions, as shown by an instrument reading of less than 500 ppmv above background as determined by the procedure in Subsection R315-261-1034(b), and by visual inspections; or

(2) A closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system if the control device is operating.

(l) The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor and inspect each closed-vent system required to comply with Section R315-261-1033 to ensure proper operation and maintenance of the closed-vent system by implementing the requirements in Subsections R315-261-1033(l)(1) through R315-261-1033(l)(3):

(1) Each closed-vent system that is used to comply with Subsection R315-261-1033(k)(1) shall be inspected and monitored in accordance with the requirements in Subsections R315-261-1033(l)(1)(i) through R315-261-1033(l)(1)(iv):

(i) An initial leak detection monitoring of the closed-vent system shall be conducted by the remanufacturer or other person that stores or treats the hazardous secondary material on or before the date that the system becomes subject to Section R315-261-1033. The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor the closed-vent system components and connections using the procedures specified in Subsection R315-261-1034(b) to demonstrate that the closed-vent system operates with no detectable emissions, as shown by an instrument reading of less than 500 ppmv above background.

(ii) After initial leak detection monitoring required in Subsection R315-261-1033(l)(1)(i), the remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed, for example, a welded joint between two sections of hard piping or a bolted and gasketed ducting flange, shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The remanufacturer or other person that stores or treats the hazardous secondary material shall monitor a component or connection using the procedures specified in Subsection R315-261-1034(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced, for example, a section of damaged hard piping is replaced with new hard piping, or the connection is unsealed, for example, a flange is unbolted.

(B) Closed-vent system components or connections other than those specified in Subsection R315-261-1033(l)(1)(ii)(A) shall be monitored annually and at other times as requested by the director, except as provided for in Subsection R315-261-1033(o), using the procedures specified in Subsection R315-261-1034(b) to demonstrate that the components or connections operate with no detectable emissions.

(iii) In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect or leak in accordance with the requirements of Subsection R315-261-1033(l)(3).

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section R315-261-1035.

(2) Each closed-vent system that is used to comply with Subsection R315-261-1033(k)(2) shall be inspected and monitored in accordance with the requirements in Subsections R315-251-1033(l)(2)(i) through R315-261-1033(l)(2)(iv):

(i) The closed-vent system shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include visible cracks, holes, or gaps in ductwork or piping or loose connections.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to Section R315-261-1033. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once each year.

(iii) In the event that a defect or leak is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1033(l)(3).

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section R315-261-1035.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall repair the detected defects in accordance with Subsections R315-261-1033(l)(3)(i) through R315-261-1033(l)(3)(iv):

(i) Detectable emissions, as shown by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but before 15 calendar days after the emission is detected, except as provided for in Subsection R315-261-1033(l)(3)(iii).

(ii) A first attempt at repair shall be made no later than five calendar days after the emission is detected.

(iii) Delay of repair of a closed-vent system where leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the remanufacturer or other person that stores or treats the hazardous secondary material determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of the equipment shall be finished by the end of the next process unit shutdown.

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the defect repair in accordance with the requirements specified in Section R315-261-1035.

(m) Closed-vent systems and control devices used to comply with Sections R315-261-1030 through R315-261-1035 shall be always be operated when emissions may be vented to them.

(n) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that any carbon that is a hazardous waste and that is removed from the control device is managed in in accordance with Subsection R315-261-1033(n)(1), R315-261-1033(n)(2), or R315-261-1033(n)(3), regardless of the average volatile organic concentration of the carbon:

(1) Regenerated or reactivated in a thermal treatment unit that meets one of the requirements in Subsections R315-261-1033(n)(1)(i) through R315-261-1033(n)(1)(iii):

(i) The owner or operator of the unit has been issued a final permit under Rule R315-270 that implements the requirements of Sections R315-264-600 through R315-264-603; or

(ii) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Sections R315-261-1030 through R315-261-1035 and R315-261-1080 through R315-261-1089 or R315-265-1030 through R315-265-1035 and R315-265-1080 through R315-265-1090; or

(iii) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR part 61 or 40 CFR part 63.

(2) Incinerated in a hazardous waste incinerator that the owner or operator either:

(i) has been issued a final permit under Rule R315-270 that implements the requirements of Sections R315-264-340 through R315-264-351; or

(ii) has designed and operates the incinerator in accordance with the interim status requirements of Sections R315-265-340 through R315-265-352.

(3) Burned in a boiler or industrial furnace that the owner or operator either:

(i) has been issued a final permit under Rule R315-270 that implements the requirements of Sections R315-266-100 through R315-266-112; or

(ii) has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Sections R315-266-100 through R315-266-112.

(o) Any components of a closed-vent system that are designated, as described in Subsection R315-261-1035(c)(9), as unsafe to monitor are exempt from the requirements of Subsection R315-261-1033(l)(1)(ii)(B) if:

(1) the remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a closed-vent system determines that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a result of complying with Subsection R315-261-1033(l)(1)(ii)(B); and

(2) the remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management unit using a closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in Subsection R315-261-1033(l)(1)(ii)(B) as often as practicable during safe-to-monitor times.

R315-261-1034. Air Emission Standards for Process Vents - Test Methods and Procedures.

(a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of Sections R315-261-1030 through 1035 shall comply with the test methods and procedural requirements provided in Section R315-261-1034.

(b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Subsection R315-261-1033(l), the test shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air, less than 10 ppm of hydrocarbon in air.

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The background level shall be determined as set forth in Reference Method 21.

(6) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(c) Performance tests to determine compliance with Subsection R315-261-1032(a) and with the total organic compound concentration limit of Subsection R315-261-1033(c) shall comply with the following:

(1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices shall be conducted and data reduced in accordance with the following reference methods and calculation procedures:

(i) Method 2 in 40 CFR part 60 for velocity and volumetric flow rate.

(ii) Method 18 or Method 25A in 40 CFR part 60, appendix A, for organic content. If Method 25A is used, the organic HAP used as the calibration gas shall be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(iii) Each performance test shall consist of three separate runs; each run conducted for at least 1 hour under the conditions that exist when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs shall apply. The average shall be computed on a time-weighted basis.

(iv) Total organic mass flow rates shall be determined by the following equation:

(A) For sources utilizing Method 18.

The equation found in 40 CFR 261.1034(c)(1)(iv)(A), 2015 ed. is adopted and incorporated by reference

Where:

E_h= Total organic mass flow rate, kg/h;

Q_{2sd}= Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

n = Number of organic compounds in the vent gas;

C_i= Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18;

MW_i= Molecular weight of organic compound i in the vent gas, kg/kg-mol;

0.0416 = Conversion factor for molar volume, kg-mol/m3 (at 293 K and 760 mm Hg);

10^{-6} = Conversion from ppm

(B) For sources utilizing Method 25A.

$E_h= (Q)(C)(MW)(0.0416)(10^{-6})$

Where:

E_h= Total organic mass flow rate, kg/h;

Q = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

C = Organic concentration in ppm, dry basis, as determined by Method 25A;

MW = Molecular weight of propane, 44;

0.0416 = Conversion factor for molar volume, kg-mol/m3 (at 293 K and 760 mm Hg);

10^{-6} = Conversion from ppm.

(v) The annual total organic emission rate shall be determined by the following equation:

$E_A=(E_h)(H)$

Where:

E_A=Total organic mass emission rate, kg/y;

E_h=Total organic mass flow rate for the process vent, kg/h;

H=Total annual hours of operations for the affected unit, h.

(vi) Total organic emissions from all affected process vents at the facility shall be determined by summing the hourly total organic mass emission rates, E_h, as determined in Subsection R315-261-1034(c)(1)(iv), and by summing the annual total organic mass emission rates, E_A, as determined in Subsection R315-261-1034(c)(1)(v), for all affected process vents at the facility.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall record such process information as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material at an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for the test methods specified in Subsection R315-261-1034(c)(1).

(ii) Safe sampling platform(s).

(iii) Safe access to sampling platform(s).

(iv) Utilities for sampling and testing equipment.

(4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs shall be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the remanufacturer's or other person's that stores or treats the hazardous secondary material control, compliance may, upon the Director's approval, be determined using the average of the results of the two other runs.

(d) To show that a process vent associated with a hazardous secondary material distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of Sections R315-261-1030 through 1035, the remanufacturer or other person that stores or treats the hazardous secondary material shall make an initial determination that the time-weighted, annual average total organic concentration of the material managed by the hazardous secondary material management unit is less than 10 ppmw using one of the following two methods:

(1) Direct measurement of the organic concentration of the material using the following procedures:

(i) The remanufacturer or other person that stores or treats the hazardous secondary material shall take a minimum of four grab samples of material for each material stream managed in the affected unit under process conditions expected to cause the maximum material organic concentration.

(ii) For material generated onsite, the grab samples shall be collected at a point before the material is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the material after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For material generated offsite, the grab samples shall be collected at the inlet to the first material management unit that receives the material provided the material has been transferred to the facility in a closed system such as a tank truck and the material is not diluted or mixed with other material.

(iii) Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060A, incorporated by reference under Section R315-260-11, of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or analyzed for its individual organic constituents.

(iv) The arithmetic mean of the results of the analyses of the four samples shall apply for each material stream managed in the unit in determining the time-weighted, annual average total organic concentration of the material. The time-weighted average is to be calculated using the annual quantity of each material stream processed and the mean organic concentration of each material stream managed in the unit.

(2) Using knowledge of the material to determine that its total organic concentration is less than 10 ppmw. Documentation of the material determination is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the material is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a material stream having a total organic content less than 10 ppmw, or prior speciation analysis results on the same material stream where it can also be documented that no process changes have occurred since that analysis that could affect the material total organic concentration.

(e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations manage hazardous secondary materials with time-weighted, annual average total organic concentrations less than 10 ppmw shall be made as follows:

(1) By the effective date that the facility becomes subject to the provisions of Sections R315-261-1030 through 1035 or by the date when the material is first managed in a hazardous secondary material management unit, whichever is later, and

(2) For continuously generated material, annually, or

(3) Whenever there is a change in the material being managed or a change in the process that generates or treats the material.

(f) When a remanufacturer or other person that stores or treats the hazardous secondary material and the Director do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous secondary material with organic concentrations of at least 10 ppmw based on knowledge of the material, the dispute may be resolved by using direct measurement as specified at Subsection R315-261-1034(d)(1).

R315-261-1035. Air Emission Standards for Process Vents - Recordkeeping Requirements.

(a)(1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of Sections R315-261-1030 through 1035 shall comply with the recordkeeping requirements of Section R315-261-1035.

(2) A remanufacturer or other person that stores or treats the hazardous secondary material of more than one hazardous secondary material management unit subject to the provisions of Sections R315-261-1030 through 1035 may comply with the recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall keep the following records on-site:

(1) For facilities that comply with the provisions of Subsection R315-261-1033(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device shall be installed and in operation. The schedule shall also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule shall be kept on-site at the facility by the effective date that the facility becomes subject to the provisions of Sections R315-261-1030 through 1035.

(2) Up-to-date documentation of compliance with the process vent standards in Subsection R315-261-1032, including:

(i) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility, i.e., the total emissions for all affected vents at the facility, and the approximate location within the facility of each affected unit, e.g., identify the hazardous secondary material management units on a facility plot plan.

(ii) Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions shall be made using operating parameter values, e.g., temperatures, flow rates, or vent stream organic compounds and concentrations, that represent the conditions that result in maximum organic emissions, such as when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. If the remanufacturer or other person that stores or treats the hazardous secondary material takes any action, e.g., managing a material of different composition or increasing operating hours of affected hazardous secondary material management units, that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

(3) Where a remanufacturer or other person that stores or treats the hazardous secondary material chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan shall be developed and include:

(i) A description of how it is determined that the planned test is going to be conducted when the hazardous secondary material management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

(ii) A detailed engineering description of the closed-vent system and control device including:

(A) Manufacturer's name and model number of control device.

(B) Type of control device.

(C) Dimensions of the control device.

(D) Capacity.

(E) Construction materials.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(4) Documentation of compliance with Subsection R315-261-1033 shall include the following information:

(i) A list of all information references and sources used in preparing the documentation.

(ii) Records, including the dates, of each compliance test required by Subsection R315-261-1033(k).

(iii) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," incorporated by reference as specified in R315-260-11, or other engineering texts acceptable to the Director that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsections R315-261-1035(b)(4)(iii)(A) through (G) may be used to comply with this requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as specified below.

(A) For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

(B) For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

(C) For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone.

(D) For a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in Subsection R315-261-1033(d).

(E) For a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and design average temperatures of the coolant fluid at the condenser inlet and outlet.

(F) For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

(G) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(iv) A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous secondary material management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(v) A statement signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Subsection R315-261-1032(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Subsection R315-261-1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

(vi) If performance tests are used to demonstrate compliance, all test results.

(c) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Rule R315-261 shall be recorded and kept up-to-date at the facility. The information shall include:

(1) Description and date of each modification that is made to the closed-vent system or control device design.

(2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Subsections R315-261-1033 (f)(1) and (2).

(3) Monitoring, operating, and inspection information required by Subsections R315-261-1033(f) through (k).

(4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:

(i) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760 deg. C, period when the combustion temperature is below 760 deg. C.

(ii) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, period when the combustion zone temperature is more than 28 degrees C below the design average combustion zone temperature established as a requirement of Subsection R315-261-1035(b)(4)(iii)(A).

(iii) For a catalytic vapor incinerator, period when:

(A) Temperature of the vent stream at the catalyst bed inlet is more than 28 degrees C below the average temperature of the inlet vent stream established as a requirement of Subsection R315-261-1035(b)(4)(iii)(B), or

(B) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of Subsection R315-261-1035(b)(4)(iii)(B).

(iv) For a boiler or process heater, period when:

(A) Flame zone temperature is more than 28 degrees C below the design average flame zone temperature established as a requirement of Subsection R315-261-1035(b)(4)(iii)(C), or

(B) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of Subsection R315-261-1035(b)(4)(iii)(C).

(v) For a flare, period when the pilot flame is not ignited.

(vi) For a condenser that complies with Subsection R315-261-1033(f)(2)(vi)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of Subsection R315-261-1035(b)(4)(iii)(E).

(vii) For a condenser that complies with Subsection R315-261-1033(f)(2)(vi)(B), period when:

(A) Temperature of the exhaust vent stream from the condenser is more than 6 degrees C above the design average exhaust vent stream temperature established as a requirement of Subsection R315-261-1035(b)(4)(iii)(E); or

(B) Temperature of the coolant fluid exiting the condenser is more than 6 degrees C above the design average coolant fluid temperature at the condenser outlet established as a requirement of Subsection R315-261-1035(b)(4)(iii)(E).

(viii) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with Subsection R315-261-1033(f)(2)(vii)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of Subsection R315-261-1035(b)(4)(iii)(F).

(ix) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device and complies with Subsection R315-261-1033(f)(2)(vii)(B), period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of Subsection R315-261-1035(b)(4)(iii)(F).

(5) Explanation for each period recorded under Subsection R315-261-1035(c)(4) of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

(6) For a carbon adsorption system operated subject to requirements specified in Subsections R315-261-1033(g) or (h)(2), date when existing carbon in the control device is replaced with fresh carbon.

(7) For a carbon adsorption system operated subject to requirements specified in Subsection R315-261-1033(h)(1), a log that records:

(i) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

(ii) Date when existing carbon in the control device is replaced with fresh carbon.

(8) Date of each control device startup and shutdown.

(9) A remanufacturer or other person that stores or treats the hazardous secondary material designating any components of a closed-vent system as unsafe to monitor pursuant to Subsection R315-261-1033(o) shall record in a log that is kept at the facility the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Subsection R315-261-1033(o), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.

(10) When each leak is detected as specified in Subsection R315-261-1033(l), the following information shall be recorded:

(i) The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number.

(ii) The date the leak was detected and the date of first attempt to repair the leak.

(iii) The date of successful repair of the leak.

(iv) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonrepairable.

(v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(A) The remanufacturer or other person that stores or treats the hazardous secondary material may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(B) If delay of repair was caused by depletion of stocked parts, there shall be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(d) Records of the monitoring, operating, and inspection information required by Subsections R315-261-1035(c)(3) through (10) shall be maintained by the owner or operator for at least 3 years following the date of each occurrence, measurement, maintenance, corrective action, or record.

(e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Director shall specify the appropriate recordkeeping requirements.

(f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Subsection R315-261-1032 including supporting documentation as required by Subsection R315-261-1034(d)(2) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used, shall be recorded in a log that is kept at the facility.

R315-261-1050. Air Emission Standards for Equipment Leaks - Applicability.

(a) The regulations in Sections R315-261-1050 through 1064 apply to equipment that contains hazardous secondary materials excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27), unless the equipment operations are subject to the requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63.

R315-261-1051. Air Emission Standards for Equipment Leaks - Definitions.

As used in Sections R315-261-1050 through 1064, all terms shall have the meaning given them in Section R315-261-1031, the Resource Conservation and Recovery Act, the Utah Solid and Hazardous Waste Act, and Rules R315-260 through 266.

R315-261-1052. Air Emission Standards: Pumps in Light Liquid Service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in Section R315-261-1063(b), except as provided in Subsections R315-261-1052(d), (e), and (f).

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-261-1059.

(2) A first attempt at repair, e.g., tightening the packing gland, shall be made no later than five calendar days after each leak is detected.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Subsection R315-261-1052(a), provided the following requirements are met:

(1) Each dual mechanical seal system shall be:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or

(ii) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-261-1060, or

(iii) Equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to the atmosphere.

(2) The barrier fluid system shall not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.

(3) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump shall be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5)(i) Each sensor as described in Subsection R315-261-1052(d)(3) shall be checked daily or be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6)(i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in Subsection R315-261-1052(d)(5)(ii), a leak is detected.

(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-261-1059.

(iii) A first attempt at repair, e.g., relapping the seal, shall be made no later than five calendar days after each leak is detected.

(e) Any pump that is designated, as described in Section R315-261-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsections R315-261-1052(a), (c), and (d) if the pump meets the following requirements:

(1) Shall have no externally actuated shaft penetrating the pump housing.

(2) Shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Section R315-261-1063(c).

(3) Shall be tested for compliance with Subsection R315-261-1052(e)(2) initially upon designation, annually, and at other times as requested by the Director.

(f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section R315-261-1060, it is exempt from the requirements of Subsections R315-261-1052(a) through (e).

R315-261-1053. Air Emission Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in Subsections R315-261-1053(h) and (i).

(b) Each compressor seal system as required in Subsection R315-261-1053(a) shall be:

(1) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure, or

(2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-261-1060, or

(3) Equipped with a system that purges the barrier fluid into a hazardous secondary material stream with no detectable emissions to atmosphere.

(c) The barrier fluid shall not be a hazardous secondary material with organic concentrations 10 percent or greater by weight.

(d) Each barrier fluid system as described in Subsections R315-261-1053(a) through (c) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in Subsection R315-261-1053(d) shall be checked daily or shall be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor shall be checked daily.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under Subsection R315-261-1053(e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-261-1059.

(2) A first attempt at repair, e.g., tightening the packing gland, shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of Subsections R315-261-1053(a) and (b) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section R315-261-1060, except as provided in Subsection R315-261-1053(i).

(i) Any compressor that is designated, as described in Section R315-261-1064(g)(2), for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of Subsections R315-261-1053(a) through (h) if the compressor:

(1) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section R315-261-1063(c).

(2) Is tested for compliance with Subsection R315-261-1053(i)(1) initially upon designation, annually, and at other times as requested by the Director.

R315-261-1054. Air Emission Standards: Pressure Relief Devices in Gas/Vapor Service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-261-1063(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Section R315-261-1059.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-261-1063(c).

(c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section R315-261-1060 is exempt from the requirements of Subsection R315-261-1054(a) and (b).

R315-261-1055. Air Emission Standards: Sampling Connection Systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. This system shall collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in Subsection R315-261-1055(a) shall meet one of the following requirements:

(1) Return the purged process fluid directly to the process line;

(2) Collect and recycle the purged process fluid; or

(3) Be designed and operated to capture and transport all the purged process fluid to a material management unit that complies with the applicable requirements of Sections R315-261-1084 through1086 or a control device that complies with the requirements of Section R315-261-1060.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of Subsections R315-261-1055(a) and (b).

R315-261-1056. Air Emission Standards: Open-Ended Valves or Lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous secondary material stream flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous secondary material stream end is closed before the second valve is closed.

(c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with Subsection R315-261-1056(a) at all other times.

R315-261-1057. Air Emission Standards: Valves in Gas/Vapor Service or in Light Liquid Service.

(a) Each valve in gas/vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in Subsection R315-261-1063(b) and shall comply with Subsections R315-261-1057(b) through (e), except as provided in Subsections R315-261-1057(f), (g), and (h) and Sections R315-261-1061 and 1062.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months,

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section R315-261-1059.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts.

(2) Replacement of bonnet bolts.

(3) Tightening of packing gland nuts.

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in Subsection R315-261-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsection R315-261-1057(a) if the valve:

(1) Has no external actuating mechanism in contact with the hazardous secondary material stream.

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in Subsection R315-261-1063(c).

(3) Is tested for compliance with Subsection R315-261-1057(f)(2) initially upon designation, annually, and at other times as requested by the Director.

(g) Any valve that is designated, as described in Subsection R315-261-1064(h)(1), as an unsafe-to-monitor valve is exempt from the requirements of Subsection R315-261-1057(a) if:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection R315-261-1057(a).

(2) The remanufacturer or other person that stores or treats the hazardous secondary material adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in Subsection R315-261-1064(h)(2), as a difficult-to-monitor valve is exempt from the requirements of Subsection R315-261-1057(a) if:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The hazardous secondary material management unit within which the valve is located was in operation before the effective date of Rule R315-261.

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

R315-261-1058. Air Emission Standards: Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors.

(a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within five days by the method specified in subsection R315-261-1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-261-1059.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under Subsection R315-261-1057(e).

(e) Any connector that is inaccessible or is ceramic or ceramic-lined, e.g., porcelain, glass, or glass-lined, is exempt from the monitoring requirements of Subsection R315-261-1058(a) and from the recordkeeping requirements of Section R315-261-1064.

R315-261-1059. Air Emission Standards: Delay of Repair.

(a) Delay of repair of equipment for which leaks have been detected shall be allowed if the repair is technically infeasible without a hazardous secondary material management unit shutdown. In such a case, repair of this equipment shall occur before the end of the next hazardous secondary material management unit shutdown.

(b) Delay of repair of equipment for which leaks have been detected shall be allowed for equipment that is isolated from the hazardous secondary material management unit and that does not continue to contain or contact hazardous secondary material with organic concentrations at least 10 percent by weight.

(c) Delay of repair for valves shall be allowed if:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section R315-261-1060.

(d) Delay of repair for pumps shall be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a hazardous secondary material management unit shutdown shall be allowed for a valve if valve assembly replacement is necessary during the hazardous secondary material management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous secondary material management unit shutdown will not be allowed unless the next hazardous secondary material management unit shutdown occurs sooner than 6 months after the first hazardous secondary material management unit shutdown.

R315-261-1060. Air Emission Standards: Closed-Vent Systems and Control Devices.

(a) The remanufacturer or other person that stores or treats the hazardous secondary material in a hazardous secondary material management units using closed-vent systems and control devices subject to Sections R315-261-1050 through 1064 shall comply with the provisions of Section R315-261-1033.

(b)(1) The remanufacturer or other person that stores or treats the hazardous secondary material at an existing facility who cannot install a closed-vent system and control device to comply with the provisions of Sections R315-261-1050 through 1064 on the effective date that the facility becomes subject to the provisions of Sections R315-261-1050 through 1064 shall prepare an implementation schedule that includes dates by which the closed-vent system and control device shall be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to Sections R315-261-1050 through 1064 for installation and startup.

(2) Any unit that begins operation after the effective date of rule R315-261 and is subject to the provisions of Sections R315-261-1050 through 1064 when operation begins, shall comply with the rules immediately, i.e., shall have control devices installed and operating on startup of the affected unit; the 30-month implementation schedule does not apply.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material at any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to Sections R315-261-1050 through 1064 shall comply with all requirements of Sections R315-261-1050 through 1064 as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by Sections R315-261-1050 through 1064 cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of Sections R315-261-1050 through 1064. The remanufacturer or other person that stores or treats the hazardous secondary material shall keep a copy of the implementation schedule at the facility.

(4) Remanufacturers or other persons that store or treat the hazardous secondary materials at facilities and units that become newly subject to the requirements of Sections R315-261-1050 through 1064 after the effective date of Rule R315-261, due to an action other than those described in Subsection R315-261-1060(b)(3) shall comply with all applicable requirements immediately, i.e., shall have control devices installed and operating on the date the facility or unit becomes subject to Sections R315-261-1050 through 1064; the 30-month implementation schedule does not apply.

R315-261-1061. Air Emission Standards for Equipment Leaks - Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Percentage of Valves Allowed to Leak.

(a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the requirements of Section R315-261-1057 may elect to have all valves within a hazardous secondary material management unit comply with an alternative standard that allows no greater than 2 percent of the valves to leak.

(b) The following requirements shall be met if a remanufacturer or other person that stores or treats the hazardous secondary material decides to comply with the alternative standard of allowing 2 percent of valves to leak:

(1) A performance test as specified in Subsection R315-261-1061(c) shall be conducted initially upon designation, annually, and at other times requested by the Director.

(2) If a valve leak is detected, it shall be repaired in accordance with Subsections R315-261-1057(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves subject to the requirements in Section R315-261-1057 within the hazardous secondary material management unit shall be monitored within 1 week by the methods specified in Subsection R315-261-1063(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves subject to the requirements in Section R315-261-1057 for which leaks are detected by the total number of valves subject to the requirements in Section R315-261-1057 within the hazardous secondary material management unit.

R315-261-1062. Air Emission Standards for Equipment Leaks - Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Skip Period Leak Detection and Repair.

(a) A remanufacturer or other person that stores or treats the hazardous secondary material subject to the requirements of Section R315-261-1057 may elect for all valves within a hazardous secondary material management unit to comply with one of the alternative work practices specified in Subsections R315-261-1062(b)(2) and (3).

(b)(1) A remanufacturer or other person that stores or treats the hazardous secondary material shall comply with the requirements for valves, as described in Section R315-261-1057, except as described in Subsections R315-261-1062(b)(2) and (3).

(2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, a remanufacturer or other person that stores or treats the hazardous secondary material may begin to skip one of the quarterly leak detection periods, i.e., monitor for leaks once every six months, for the valves subject to the requirements in Section R315-261-1057.

(3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, a remanufacturer or other person that stores or treats the hazardous secondary material may begin to skip three of the quarterly leak detection periods, i.e., monitor for leaks once every year, for the valves subject to the requirements in Section R315-261-1057.

(4) If the percentage of valves leaking is greater than two percent, the remanufacturer or other person that stores or treats the hazardous secondary material shall monitor monthly in compliance with the requirements in Section R315-261-1057, but may again elect to use Section R315-261-1062 after meeting the requirements of Subsection R315-261-1057(c)(1).

R315-261-1063. Air Emission Standards for Equipment Leaks - Test Methods and Procedures.

(a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of Sections R315-261-1050 through 1064 shall comply with the test methods and procedures requirements provided in Section R315-261-1063.

(b) Leak detection monitoring, as required in Sections R315-261-1052 through1062, shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air, less than 10 ppm of hydrocarbon in air.

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(c) When equipment is tested for compliance with no detectable emissions, as required in Subsections R315-261-1052(e), 1053(i), and 1057(f) and Sections R315-261-1054, the test shall comply with the following requirements:

(1) The requirements of Subsections R315-261-1063(b)(1) through (4) shall apply.

(2) The background level shall be determined as set forth in Reference Method 21.

(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) A remanufacturer or other person that stores or treats the hazardous secondary material shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous secondary material with organic concentration that equals or exceeds 10 percent by weight using the following:

(1) Methods described in ASTM Methods D 2267-88, E 169-87, E 168-88, E 260-85, incorporated by reference under Section R315-260-11;

(2) Method 9060A, incorporated by reference under Section R315-260-11, of "Test Methods for Evaluating Solid Waste," EPA Publication SW-846, for computing total organic concentration of the sample, or analyzed for its individual organic constituents; or

(3) Application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced. Documentation of a material determination by knowledge is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the material is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same material stream where it can also be documented that no process changes have occurred since that analysis that could affect the material total organic concentration.

(e) If a remanufacturer or other person that stores or treats the hazardous secondary material determines that a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight, the determination can be revised only after following the procedures in Subsection R315-261-1063(d)(1) or (2).

(f) When a remanufacturer or other person that stores or treats the hazardous secondary material and the Director do not agree on whether a piece of equipment contains or contacts a hazardous secondary material with organic concentrations at least 10 percent by weight, the procedures in Subsection R315-261-1063(d)(1) or (2) can be used to resolve the dispute.

(g) Samples used in determining the percent organic content shall be representative of the highest total organic content hazardous secondary material that is expected to be contained in or contact the equipment.

(h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents may be obtained from standard reference texts or may be determined by ASTM D-2879-86, incorporated by reference under Section R315-260-11.

(i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction shall comply with the procedures of Subsections R315-261-1034(c)(1) through (4).

R315-261-1064. Air Emission Standards for Equipment Leaks - Recordkeeping Requirements.

(a)(1) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to the provisions of Sections R315-261-1050 through 1064 shall comply with the recordkeeping requirements of Section R315-261-1064.

(2) A remanufacturer or other person that stores or treats the hazardous secondary material in more than one hazardous secondary material management unit subject to the provisions of Sections R315-261-1050 through 1064 may comply with the recordkeeping requirements for these hazardous secondary material management units in one recordkeeping system if the system identifies each record by each hazardous secondary material management unit.

(b) Remanufacturer's and other person's that store or treat the hazardous secondary material shall record and keep the following information at the facility:

(1) For each piece of equipment to which Sections R315-261-1050 through 1064 applies:

(i) Equipment identification number and hazardous secondary material management unit identification.

(ii) Approximate locations within the facility, e.g., identify the hazardous secondary material management unit on a facility plot plan.

(iii) Type of equipment, e.g., a pump or pipeline valve.

(iv) Percent-by-weight total organics in the hazardous secondary material stream at the equipment.

(v) Hazardous secondary material state at the equipment, e.g., gas/vapor or liquid.

(vi) Method of compliance with the standard, e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals".

(2) For facilities that comply with the provisions of Subsection R315-261-1033(a)(2), an implementation schedule as specified in Subsection R315-261-1033(a)(2).

(3) Where a remanufacturer or other person that stores or treats the hazardous secondary material chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Subsection R315-261-1035(b)(3).

(4) Documentation of compliance with Section R315-261-1060, including the detailed design documentation or performance test results specified in Subsection R315-261-1035(b)(4).

(c) When each leak is detected as specified in Sections R315-261-1052, 1053, 1057, and 1058, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Subsection R315-261-1058(a), and the date the leak was detected, shall be attached to the leaking equipment.

(2) The identification on equipment, except on a valve, may be removed after it has been repaired.

(3) The identification on a valve may be removed after it has been monitored for two successive months as specified in Subsection R315-261-1057(c) and no leak has been detected during those two months.

(d) When each leak is detected as specified in Sections R315-261-1052, 1053, 1057, and 1058, the following information shall be recorded in an inspection log and shall be kept at the facility:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date evidence of a potential leak was found in accordance with Subsection R315-261-1058(a).

(3) The date the leak was detected and the dates of each attempt to repair the leak.

(4) Repair methods applied in each attempt to repair the leak.

(5) "Above 10,000" if the maximum instrument reading measured by the methods specified in Subsection R315-261-1063(b) after each repair attempt is equal to or greater than 10,000 ppm.

(6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(7) Documentation supporting the delay of repair of a valve in compliance with Subsection R315-261-1059(c).

(8) The signature of the remanufacturer or other person that stores or treats the hazardous secondary material, or designate, whose decision it was that repair could not be effected without a hazardous secondary material management unit shutdown.

(9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

(10) The date of successful repair of the leak.

(e) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Section R315-261-1060 shall be recorded and kept up-to-date at the facility as specified in Subsection R315-261-1035(c). Design documentation is specified in Subsections R315-261-1035(c)(1) and (2) and monitoring, operating, and inspection information in Subsections R315-261-1035(c)(3) through (8).

(f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Director shall specify the appropriate recordkeeping requirements.

(g) The following information pertaining to all equipment subject to the requirements in Sections R315-261-1052 through 1060 shall be recorded in a log that is kept at the facility:

(1) A list of identification numbers for equipment, except welded fittings, subject to the requirements of Sections R315-261-1050 through 1064.

(2)(i) A list of identification numbers for equipment that the remanufacturer or other person that stores or treats the hazardous secondary material elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Subsections R315-261-1052(e), 1053(i), and 1057(f).

(ii) The designation of this equipment as subject to the requirements of Subsection R315-261-1052(e), 1053(i), or 1057(f) shall be signed by the remanufacturer or other person that stores or treats the hazardous secondary material.

(3) A list of equipment identification numbers for pressure relief devices required to comply with Subsection R315-261-1054(a).

(4)(i) The dates of each compliance test required in Subsections R315-261-1052(e), 1053(i), and 1057(f) and Section R315-261-1054.

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) Identification, either by list or location, area or group, of equipment that contains or contacts hazardous secondary material with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year.

(h) The following information pertaining to all valves subject to the requirements of Subsections R315-261-1057(g) and (h) shall be recorded in a log that is kept at the facility:

(1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

(2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

(i) The following information shall be recorded in a log that is kept at the facility for valves complying with Section R315-261-1062:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(j) The following information shall be recorded in a log that is kept at in the facility:

(1) Criteria required in Subsections R315-261-1052(d)(5)(ii) and 1053(e)(2) and an explanation of the design criteria.

(2) Any changes to these criteria and the reasons for the changes.

(k) The following information shall be recorded in a log that is kept at the facility for use in determining exemptions as provided in the applicability section of Sections R315-261-1050 and other Sections of Rule R315-261:

(1) An analysis determining the design capacity of the hazardous secondary material management unit.

(2) A statement listing the hazardous secondary material influent to and effluent from each hazardous secondary material management unit subject to the requirements in Sections R315-261-1052 through 1060 and an analysis determining whether these hazardous secondary materials are heavy liquids.

(3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections R315-261-1052 through 1060. The record shall include supporting documentation as required by Subsection R315-261-1063(d)(3) when application of the knowledge of the nature of the hazardous secondary material stream or the process by which it was produced is used. If the

remanufacturer or other person that stores or treats the hazardous secondary material takes any action, e.g., changing the process that produced the material, that could result in an increase in the total organic content of the material contained in or contacted by equipment determined not to be subject to the requirements in Sections R315-261-1052 through 1060, then a new determination is required.

(l) Records of the equipment leak information required by Subsection R315-261-1064(d) and the operating information required by Subsection R315-261-1064(e) need be kept only three years.

(m) The remanufacturer or other person that stores or treats the hazardous secondary material at a facility with equipment that is subject to Sections R315-261-1050 through 1064 and to regulations at 40 CFR part 60, part 61, or part 63 may elect to determine compliance with Sections R315-261-1050 through 1064 either by documentation pursuant to Section R315-261-1064, or by documentation of compliance with the regulations at 40 CFR part 60, part 61, or part 63 pursuant to the relevant provisions of the regulations at 40 part 60, part 61, or part 63. The documentation of compliance under regulations at 40 CFR part 60, part 61, or part 63 shall be kept with or made readily available at the facility.

R315-261-1080. Air Emission Standards for Tanks and Containers - Applicability.

(a) The regulations in Sections R315-261-1080 through 1089 apply to tanks and containers that contain hazardous secondary materials excluded under the remanufacturing exclusion at Subsection R315-261-4(a)(27), unless the tanks and containers are equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulations codified under 40 CFR part 60, part 61, or part 63.

R315-261-1081. Air Emission Standards for Tanks and Containers - Definitions.

(a) As used in Sections R315-261-1080 through 1089, all terms not defined herein shall have the meaning given to them in the Resource Conservation and Recovery Act, the Utah Solid and Hazardous Waste Act, and Rules R315-260 through 266.

(1) "Average volatile organic concentration or average VO concentration" means the mass-weighted average volatile organic concentration of a hazardous secondary material as determined in accordance with the requirements of Section R315-261-1084.

(2) "Closure device" means a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover such that when the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. Closure devices include devices that are detachable from the cover; e.g., a sampling port cap; manually operated, e.g., a hinged access lid or hatch; or automatically operated, e.g., a spring-loaded pressure relief valve.

(3) "Continuous seal" means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

(4) "Cover" means a device that provides a continuous barrier over the hazardous secondary material managed in a unit to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings, such as access hatches, sampling ports, gauge wells, that are necessary for operation, inspection, maintenance, and repair of the unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the unit or a cover may be formed by structural features permanently integrated into the design of the unit.

(5) "Empty hazardous secondary material container" means:

(a) A container from which all hazardous secondary materials have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and no more than 2.5 centimeters, one inch, of residue remain on the bottom of the container or inner liner;

(b) A container that is less than or equal to 119 gallons in size and no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner; or

(c) A container that is greater than 119 gallons in size and no more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner.

(6) "Enclosure" means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device.

(7) "External floating roof" means a pontoon-type or double-deck type cover that rests on the surface of the material managed in a tank with no fixed roof.

(8) "Fixed roof" means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the material managed in the unit.

(9) "Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous secondary material being managed in a surface impoundment.

(10) "Floating roof" means a cover consisting of a double deck, pontoon single deck, or internal floating cover which rests upon and is supported by the material being contained, and is equipped with a continuous seal.

(11) "Hard-piping" means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

(12) "In light material service" means the container is used to manage a material for which both of the following conditions apply: The vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20 degrees C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20 degrees C is equal to or greater than 20 percent by weight.

(13) "Internal floating roof" means a cover that rests or floats on the material surface, but not necessarily in complete contact with it, inside a tank that has a fixed roof.

(14) "Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous secondary material between the tank wall and the floating roof continuously around the circumference of the tank.

(15) "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(16) "Material determination" means performing all applicable procedures in accordance with the requirements of Section R315-261-1084 to determine whether a hazardous secondary material meets standards specified in Sections R315-261-1080 through 1089. Examples of a material determination include performing the procedures in accordance with the requirements of Section R315-261-1084 to determine the average VO concentration of a hazardous secondary material at the point of material origination; the average VO concentration of a hazardous secondary material at the point of material treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous secondary material; the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous secondary material and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous secondary material in a tank and comparing the results to the applicable standards.

(17) "Maximum organic vapor pressure" means the sum of the individual organic constituent partial pressures exerted by the material contained in a tank, at the maximum vapor pressure-causing conditions, i.e., temperature, agitation, pH effects of combining materials, etc., reasonably expected to occur in the tank. For the purpose of Sections R315-261-1080 through 1089, maximum organic vapor pressure is determined using the procedures specified in Subsection R315-261-1084(c).

(18) "Metallic shoe seal" means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric, envelope, spans the annular space between the metal sheet and the floating roof.

(19) "No detectable organic emissions" means no escape of organics to the atmosphere as determined using the procedure specified in Subsection R315-261-1084(d).

(20) "Point of material origination" means as follows:

(a) When the remanufacturer or other person that stores or treats the hazardous secondary material is the generator of the hazardous secondary material, the point of material origination means the point where a material produced by a system, process, or material management unit is determined to be a hazardous secondary material excluded under Subsection R315-261-4(a)(27).

Note to paragraph (a) of the definition of "Point of material origination: "In this case, this term is being used in a manner similar to the use of the term "point of generation" in air standards established under authority of the Clean Air Act in 40 CFR parts 60, 61, and 63.

(b) When the remanufacturer or other person that stores or treats the hazardous secondary material is not the generator of the hazardous secondary material, point of material origination means the point where the remanufacturer or other person that stores or treats the hazardous secondary material accepts delivery or takes possession of the hazardous secondary material.

(21) "Safety device" means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of Sections R315-261-1080 through 1089, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

(22) "Single-seal system" means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

(23) "Vapor-mounted seal" means a continuous seal that is mounted such that there is a vapor space between the hazardous secondary material in the unit and the bottom of the seal.

(24) "Volatile organic concentration" or "VO concentration" means the fraction by weight of the volatile organic compounds contained in a hazardous secondary material expressed in terms of parts per million (ppmw) as determined by direct measurement or by knowledge of the material in accordance with the requirements of Section R315-261-1084. For the purpose of determining the VO concentration of a hazardous secondary material, organic compounds with a Henry's law constant value of at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in the liquid-phase (0.1 Y/X), which can also be expressed as 1.8 ℙ 10^{-6}atmospheres/gram-mole/m^3, at 25 deg. Celsius shall be included.

R315-261-1082. Air Emission Standards for Tanks and Containers - Standards: General.

(a) Section R315-261-1082 applies to the management of hazardous secondary material in tanks and containers subject to Sections R315-261-1080 through 1089.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each hazardous secondary material management unit in accordance with standards specified in Sections R315-261-1084 through 1087, as applicable to the hazardous secondary material management unit, except as provided for in Subsection R315-261-1082(c).

(c) A tank or container is exempt from standards specified in Sections R315-261-1084 through 1087, as applicable, provided that the hazardous secondary material management unit is a tank or container for which all hazardous secondary material entering the unit has an average VO concentration at the point of material origination of less than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in Subsection R315-261-1083(a). The remanufacturer or other person that stores or treats the hazardous secondary material shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous secondary material streams entering the unit.

R315-261-1083. Air Emission Standards for Tanks and Containers - Material Determination Procedures.

(a) Material determination procedure to determine average volatile organic (VO) concentration of a hazardous secondary material at the point of material origination.

(1) Determining average VO concentration at the point of material origination. A remanufacturer or other person that stores or treats the hazardous secondary material shall determine the average VO concentration at the point of material origination for each hazardous secondary material placed in a hazardous secondary material management unit exempted under Subsection R315-261-1082(c) from using air emission controls in accordance with standards specified in Sections R315-261-1084 through R315-261-1087, as applicable to the hazardous secondary material management unit.

(i) An initial determination of the average VO concentration of the material stream shall be made before the first time any portion of the material in the hazardous secondary material stream is placed in a hazardous secondary material management unit exempted under Subsection R315-261-1082(c) from using air emission controls, and thereafter an initial determination of the average VO concentration of the material stream shall be made for each averaging period that a hazardous secondary material is managed in the unit; and

(ii) Perform a new material determination if changes to the source generating the material stream are reasonably likely to cause the average VO concentration of the hazardous secondary material to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section R315-261-1082.

(2) Determination of average VO concentration using direct measurement or knowledge. For a material determination that is required by Subsection R315-261-1083(a)(1), the average VO concentration of a hazardous secondary material at the point of material origination shall be determined using either direct measurement as specified in Subsection R315-261-1083(a)(3) or by knowledge as specified in Subsection R315-261-1083(a)(4).

(3) Direct measurement to determine average VO concentration of a hazardous secondary material at the point of material origination.

(i) Identification. The remanufacturer or other person that stores or treats the hazardous secondary material shall identify and record in a log that is kept at the facility the point of material origination for the hazardous secondary material.

(ii) Sampling. Samples of the hazardous secondary material stream shall be collected at the point of material origination in a manner that minimizes volatilization of organics contained in the material and in the subsequent sample and an adequately representative sample is collected and maintained for analysis by the selected method.

(A) The averaging period to be used for determining the average VO concentration for the hazardous secondary material stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the remanufacturer or other person that stores or treats the hazardous secondary material determines is appropriate for the hazardous secondary material stream but may not exceed 1 year.

(B) Enough samples, but no less than four samples, shall be collected and analyzed for a hazardous secondary material determination. Each of the samples for a given material determination shall be collected within a one-hour period. The average of the four or more sample results constitutes a material determination for the material stream. One or more material determinations may be required to represent the complete range of material compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous secondary material stream. Examples of the normal variations are seasonal variations in material quantity or fluctuations in ambient temperature.

(C) Each sample shall be collected and handled in accordance with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan shall describe the procedure used to collect representative samples of the hazardous secondary material stream so that a minimum loss of organics occurs throughout the sample collection and handling process and sample integrity is maintained. A copy of the written sampling plan shall be maintained at the facility. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in 40 CFR part 60, appendix A.

(D) Enough information, as specified in the site sampling plan required under Subsection R315-261-1083(a)(3)(ii)(C), shall be prepared and recorded to document the material quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous secondary material represented by the samples.

(iii) Analysis. Each collected sample shall be prepared and analyzed in accordance with Method 25D in 40 CFR part 60, appendix A for the total concentration of volatile organic constituents, or using one or more methods if the individual organic compound concentrations are identified and summed and the summed material concentration accounts for and reflects the organic compounds in the material with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase, 0.1 Y/X, which can also be expressed as 1.8×10^{-6}atmospheres/gram-mole/m^3, at 25 deg. Celsius. At the discretion of the remanufacturer or other person that stores or treats the hazardous secondary material, the test data received may be adjusted by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value of less than 0.1 Y/X at 25 deg. Celsius. To adjust these data, the measured concentration of each individual chemical constituent contained in the material is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}). If the remanufacturer or other person that stores or treats the hazardous secondary material elects to adjust the test data, the adjustment shall be made to the individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25 degrees Celsius contained in the material. Constituent-specific adjustment factors, f_{m25D}, can be received by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet the requirements in Subsection R315-261-1083(a)(3)(iii)(A) or R315-261-1083(a)(3)(iii)(B) and provided the requirement to reflect any organic compounds in the material with Henry's law constant values greater than or equal to 0.1 Y/X, which can also be expressed as 1.8×10^{-6}atmospheres/gram-mole/m^3, at 25 deg. Celsius, is met.

(A) Any EPA standard method that has been validated in accordance with "Alternative Validation Procedure for EPA Waste and Wastewater Methods," 40 CFR part 63, appendix D.

(B) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR part 63, appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

(iv) Calculations.

(A) The average VO concentration (C) on a mass-weighted basis shall be calculated by using the results for the material determinations conducted in accordance with Subsections R315-261-1083(a)(3)(ii) and R315-261-1083(a)(3)(iii) and the equation found in 40 CFR 261.1083(a)(3)(iv)(A), 2015 ed. is incorporated by reference.

Where:

C = Average VO concentration of the hazardous secondary material at the point of material origination on a mass-weighted basis, ppmw.

i = Individual material determination "i" of the hazardous secondary material.

n = Total number of material determinations of the hazardous secondary material conducted for the averaging period, not to exceed 1 year.

Q_i = Mass quantity of hazardous secondary material stream represented by C_i, kg/hr.

Q_T = Total mass quantity of hazardous secondary material during the averaging period, kg/hr.

C_i = Measured VO concentration of material determination "i" as determined in accordance with the requirements of Subsection R315-261-1083(a)(3)(iii), that is, the average of the four or more samples specified in Subsection R315-261-1083(a)(3)(ii)(B), ppmw.

(B) To determine C_i, for individual material samples analyzed in accordance with Subsection R315-261-1083(a)(3)(iii), the remanufacturer or other person that stores or treats the hazardous secondary material shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the VO concentration specified in Subsection R315-261-1083(a)(3)(iv)(B)(I) or R315-261-1083(a)(3)(iv)(B)(II):

(I) If Method 25D in 40 CFR part 60, appendix A is used for the analysis, one-half the blank value determined in the method at section 4.4 of Method 25D in 40 CFR part 60, appendix A.

(II) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the material that has a Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase, 0.1 Y/X, which can also be expressed as 1.8×10^{-6}atmospheres/gram-mole/m^3, at 25 degrees Celsius.

(4) Use of knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material to determine average VO concentration of a hazardous secondary material at the point of material origination.

(i) Documentation shall be prepared that presents the information used as the basis for the knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material of the hazardous secondary material stream's average VO concentration. Examples of information that may be used as the basis for knowledge include: Material balances for the source or process generating the hazardous secondary material stream; constituent-specific chemical test data for the hazardous secondary material stream from previous testing that are still applicable to the current material stream; previous test data for other locations managing the same type of material stream; or other knowledge based on information included in shipping papers or material certification notices.

(ii) If test data are used as the basis for knowledge, then the remanufacturer or other person that stores or treats the hazardous secondary material shall document the test method, sampling protocol, and the means used to account for sampling variability and analytical variability in the determination of the average VO concentration. For example, a remanufacturer or other person that stores or treats the hazardous secondary material may use organic concentration test data for the hazardous secondary material stream that are validated in accordance with Method 301 in 40 CFR part 63, appendix A as the basis for knowledge of the material.

(iii) A remanufacturer or other person that stores or treats the hazardous secondary material using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous secondary material may adjust the test data to the corresponding average VO concentration value that would have been received had the material samples been analyzed using Method 25D in 40 CFR part 60, appendix A. To adjust these data, the measured concentration for each individual chemical constituent contained in the material is multiplied by the appropriate constituent-specific adjustment factor, f_{m25D}.

(iv) In the event that the director and the remanufacture or other person that stores or treats the hazardous secondary material disagree on a determination of the average VO concentration for a hazardous secondary material stream using knowledge, then the results from a determination of average VO concentration using direct measurement as specified in Subsection R315-261-1083(a)(3) shall be used to establish compliance with the applicable requirements of Sections R315-261-1080 through R315-261-1089. The director may perform or request that the remanufacturer or other person that stores or treats the hazardous secondary material perform this determination using direct measurement. The remanufacturer or other person that stores or treats the hazardous secondary material may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of Subsection R315-261-1083(a)(3)(iii).

(b) Reserved

(c) Procedure to determine the maximum organic vapor pressure of a hazardous secondary material in a tank.

(1) A remanufacturer or other person that stores or treats the hazardous secondary material shall determine the maximum organic vapor pressure for each hazardous secondary material placed in a tank using Tank Level 1 controls in accordance with standards specified in Subsection R315-261-1084(c).

(2) A remanufacturer or other person that stores or treats the hazardous secondary material shall use either direct measurement as specified in Subsection R315-261-1083(c)(3) or knowledge of the waste as specified by Subsection R315-261-1083(c)(4) to determine the maximum organic vapor pressure that is representative of the hazardous secondary material composition stored or treated in the tank.

(3) Direct measurement to determine the maximum organic vapor pressure of a hazardous secondary material.

(i) Sampling. Enough samples shall be collected to be representative of the hazardous secondary material contained in the tank. The samples shall be collected and handled in accordance with written procedures prepared by the remanufacturer or other person that stores or treats the hazardous secondary material and documented in a site sampling plan. This plan shall describe the procedure used to collect representative samples of the hazardous secondary material so that a minimum loss of organics occurs throughout the sample collection and handling process and sample integrity is maintained. A copy of the written sampling plan shall be maintained at the facility. An example of acceptable sample collection and handling procedures may be found in Method 25D in 40 CFR part 60, appendix A.

(ii) Analysis. Any appropriate one of the methods listed in Subsections R315-261-1083(b)(3)(ii)(A) through R315-261-1083(b0(3)(ii)(E) may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous secondary material:

(A) Method 25E in 40 CFR part 60 appendix A;

(B) Methods described in American Petroleum Institute Publication 2517, Third Edition, February 1989, "Evaporative Loss from External Floating-Roof Tanks," incorporated by reference - refer to Section R315-260-11;

(C) Methods received from standard reference texts;

(D) ASTM Method 2879-92, incorporated by reference - refer to Section R315-260-11; and

(E) Any other method approved by the director.

(4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous secondary material. Documentation shall be prepared and recorded that presents the information used as the basis for the knowledge by the remanufacturer or other person that stores or treats the hazardous secondary material that the maximum organic vapor pressure of the hazardous secondary material is less than the maximum vapor pressure limit listed in Subsection R315-261-1084(b)(1)(i) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous secondary material is generated by a process that at other locations it previously has been determined by direct measurement that the hazardous secondary material's waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

(d) Procedure for determining no detectable organic emissions for complying with Sections R315-261-1080 through R315-261-1089:

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface, that is, a location where organic vapor leakage could occur, on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include: The interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure relief valve.

(2) The test shall be performed if the unit contains a hazardous secondary material having an organic concentration representative of the range of concentrations for the hazardous secondary material expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the hazardous secondary material placed in the hazardous secondary management unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air, less than 10 ppmv hydrocarbon in air; and

(ii) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppmv methane or n-hexane.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21 of 40 CFR part 60, appendix A. If the configuration of the cover or closure device prevents a complete traverse of the interface, each accessible portion of the interface shall be sampled. If the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn, for example, pressure relief devices, the instrument probe inlet shall be placed at about the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration shown by the instrument and the background level shall be compared with the value of 500 ppmv except if monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison shall be as specified in Subsection R315-261-1083(d)(9). If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

(9) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration shown by the instrument and the background level shall be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

R315-261-1084. Air Emission Standards for Tanks and Containers - Standards: Tanks.

(a) Section R315-261-1084 applies to the control of air pollutant emissions from tanks that Subsection R315-261-1082(b) references the use of Section R315-261-1084 for the air emission control.

(b) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each tank subject to Section R315-261-1084 in accordance with the requirements of Subsection R315-261-1084(b)(1) or R315-261-1084(b)(2) as applicable:

(1) For a tank that manages hazardous secondary material that meets the of the conditions specified in Subsections R315-261-1084(b)(1)(i) through R315-261-1084(b)(1)(iii), the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in Subsection R315-261-1084(c) or the Tank Level 2 controls specified in Subsection R315-261-1084(d).

(i) The hazardous secondary material in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:

(A) For a tank design capacity equal to or greater than 151 m^3, the maximum organic vapor pressure limit for the tank is 5.2 kPa.

(B) For a tank design capacity equal to or greater than 75 m^3 but less than 151 m^3, the maximum organic vapor pressure limit for the tank is 27.6 kPa.

(C) For a tank design capacity less than 75 m^3, the maximum organic vapor pressure limit for the tank is 76.6 kPa.

(ii) The hazardous secondary material in the tank is not heated by the remanufacturer or other person that stores or treats the hazardous secondary material to a temperature that is greater than the temperature that the maximum organic vapor pressure of the hazardous secondary material is determined for complying with Subsection R315-261-1084(b)(1)(i).

(2) For a tank that manages hazardous secondary material that does not meet the of the conditions specified in Subsections R315-261-1084(b)(1)(i) through R315-261-1084(b)(1)(iii), the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of Subsection R315-261-1084(d). An example of tanks required to use Tank Level 2 controls is a tank that the hazardous secondary material in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in Subsection R315-261-1084(b)(1)(i).

(c) Remanufacturers or other persons that store or treats the hazardous secondary material controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in Subsections R315-261-1084(c)(1) through R315-261-1084(c)(4):

(1) The remanufacturer or other person that stores or treats that hazardous secondary material shall determine the maximum organic vapor pressure for a hazardous secondary material to be managed in the tank using Tank Level 1 controls before the first time the hazardous secondary material is placed in the tank. The maximum organic vapor pressure shall be determined using the procedures specified in Subsection R315-261-1083(c). Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform a new determination if changes to the hazardous secondary material managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in Subsection R315-261-1084(b)(1)(i), as applicable to the tank.

(2) The tank shall be equipped with a fixed roof designed to meet the specifications in Subsections R315-261-1084(c)(2)(i) through R315-261-1084(c)(2)(iii):

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the hazardous secondary material in the tank. The fixed roof may be a separate cover installed on the tank, for example, a removable cover mounted on an open-top tank, or may be an integral part of the tank structural design, for example, a horizontal cylindrical tank equipped with a hatch.

(ii) The fixed roof shall be installed in a manner so that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(iii) Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either:

(A) equipped with a closure device designed to operate so that if the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

(B) connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating if hazardous secondary material is managed in the tank, except as provided for in Subsections R315-261-1084(c)(2)(iii)(B)(I) and R315-261-1084(c)(2)(iii)(B)(II).

(I) During periods when it is necessary to provide access to the tank for performing the activities of Subsection R315-261-1084(c)(2)(iii)(B)(II), venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device.

(II) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for removal of accumulated sludge or other residues from the bottom of the tank.

(iv) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the hazardous secondary material or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank that has a fixed roof installed.

(3) If a hazardous secondary material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(i) Opening of closure devices or removal of the fixed roof is allowed in accordance with Subsections R315-261-1084(c)(3)(i)(A) and R315-261-1084(c)(3)(i)(B):

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of these activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of tank.

(ii) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions if the device is secured in the closed position. The settings that cause the device to open shall be established so that the device remains in the closed position if the tank internal pressure is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on the tank manufacturer recommendations, applicable rules, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

(iii) Opening of a safety device, as defined in Section R315-261-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the air emission control equipment in accordance with the requirements in Subsections R315-261-1084(c)(4)(i) through R315-261-1084 (c)(4)(iv).

(i) The fixed roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to Section R315-261-1084. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once each year except under the special conditions provided for in Subsection R315-261-1084(l).

(iii) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(d) Remanufacturers or other persons that store or treat the hazardous secondary material controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the tanks specified in Subsections R315-261-1084(d)(1) through R315-261-1084(d)(5):

(1) A fixed roof tank equipped with an internal floating roof in accordance with the requirements specified in Subsection R315-261-1084(e);

(2) A tank equipped with an external floating roof in accordance with the requirements specified in Subsection R315-261-1084(f);

(3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in Subsection R315-261-1084(g);

(4) A pressure tank designed and operated in accordance with the requirements specified in Subsection R315-261-1084(h); or

(5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in Subsection R315-261-1084(i).

(e) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in Subsections R315-261-1084(e)(1) through R315-261-1084(e)(3).

(1) The tank shall be equipped with a fixed roof and an internal floating roof in accordance with the requirements in Subsections R315-261-1084(e)(1)(i) through R315-261-1084(e)(1)(iii):

(i) The internal floating roof shall be designed to float on the liquid surface except when the floating roof shall be supported by the leg supports.

(ii) The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the requirements in Subsection R315-261-1084(e)(1)(ii)(A) or R315-261-1084(e)(1)(ii)(B):

(A) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in Section R315-261-1081; or

(B) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

(iii) The internal floating roof shall meet the specifications of Subsections R315-261-1084(e)(1)(iii)(A) through R315-261-1084(e)(1)(iii)(F):

(A) Each opening in a noncontact internal floating roof except for automatic bleeder vents, vacuum breaker vents, and the rim space vents is to provide a projection below the liquid surface.

(B) Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

(C) Each penetration of the internal floating roof for sampling shall have a slit fabric cover that covers at least 90% of the opening.

(D) Each automatic bleeder vent and rim space vent shall be gasketed.

(E) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(F) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the tank in accordance with the requirements of Subsections R315-261-1084(e)(2)(i) through R315-261-1084(e)(2)(iii):

(i) If the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be finished as soon as practical.

(ii) Automatic bleeder vents are to be always set closed if the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(iii) Before filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed, that is, no visible gaps. Rim space vents are to be set to open only if the internal floating roof is not floating or if the pressure beneath the rim exceeds the manufacturer's recommended setting.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the internal floating roof in accordance with the procedures specified as follows:

(i) The floating roof and its closure devices shall be visually inspected by the remanufacture or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include: The internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the hazardous secondary material surface from the atmosphere; or the slotted membrane has more than 10% open area.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the internal floating roof components as follows except as provided in Subsection R315-261-1084(e)(3)(iii):

(A) Visually inspect the internal floating roof components through openings on the fixed roof, for example, manholes and roof hatches, at least once each 12 month period after initial fill; and

(B) Visually inspect the internal floating roof, primary seal, secondary seal, if one is in service, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least each 10 year period.

(iii) As an alternative to performing the inspections specified in Subsection R315-261-1084(e)(3)(ii) for an internal floating roof equipped with two continuous seals mounted one above the other, the remanufacturer or other person that stores or treats the hazardous secondary material may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least each five year period.

(iv) Before each inspection required by Subsection R315-261-1084(e)(3)(ii) or R315-261-1084(e)(3)(iii), the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director in advance of each inspection to provide the director with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director of the date and location of the inspection as follows:

(A) Before each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material so that it is received by the director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-261-1084(e)(3)(iv)(B).

(B) If a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the director at least seven calendar days before refilling the tank.

(v) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(vi) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(4) Safety devices, as defined in Section R315-261-1081, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-261-1084(e).

(f) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in Subsections R315-261-1084(f)(1) through R315-261-1084(f)(3).

(1) The remanufacturer or other person that stores or treats the hazardous secondary material shall design the external floating roof in accordance with the requirements of Subsections R315-261-1084(f)(1)(i) and R315-261-1084(f)(1)(ii):

(i) The external floating roof shall be designed to float on the liquid surface except when the floating roof shall be supported by the leg supports.

(ii) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in Section R315-261-1081. The total area of the gaps between the tank wall and the primary seal may not exceed 212 square centimeters per meter of tank diameter, and the width of any portion of these gaps may not exceed 3.8 centimeters. If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.

(B) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal may not exceed 21.2 square centimeters per meter of tank diameter, and the width of any portion of these gaps may not exceed 1.3 centimeters.

(iii) The external floating roof shall meet the specifications in Subsections R315-261-1084(f)(1)(iii)(A) through R315-261-1084(f)(1)(iii)(I):

(A) Except for automatic bleeder vents, vacuum breaker vents, and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

(B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

(C) Each access hatch and each gauge float well shall be equipped with a cover designed to be bolted or fastened if the cover is secured in the closed position.

(D) Each automatic bleeder vent and each rim space vent shall be equipped with a gasket.

(E) Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening.

(F) Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

(G) Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(H) Each slotted guide pole shall be equipped with a gasketed float or other device that closes off the liquid surface from the atmosphere.

(I) Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the tank in accordance with the requirements of Subsections R315-261-1084(f)(2)(i) through R315-261-1084(f)(2)(viii):

(i) If the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be finished as soon as practical.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall always be secured and maintained in a closed position except when the closure device shall be open for access.

(iii) Covers on each access hatch and each gauge float well shall be bolted or fastened if secured in the closed position.

(iv) Automatic bleeder vents shall always be set closed if the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(v) Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or if the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(vi) The cap on the end of each unslotted guide pole shall always be secured in the closed position except when measuring the level or collecting samples of the liquid in the tank.

(vii) The cover on each gauge hatch or sample well shall always be secured in the closed position except when the hatch or well shall be opened for access.

(viii) Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect the external floating roof in accordance with the procedures specified as follows:

(i) The remanufacturer or other person that stores or treats the hazardous secondary material shall measure the external floating roof seal gaps in accordance with the requirements in Subsections R315-261-1084(f)(3)(i)(A) through R315-261-1084(f)(3)(i)(F):

(A) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once each 5 year period.

(B) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once each year.

(C) If a tank stops holding hazardous secondary material for a period of 1 year or more, subsequent introduction of hazardous secondary material into the tank shall be considered an initial operation for the purposes of Subsections R315-261-1084(f)(3)(i)(A) and R315-261-1084(f)(3)(i)(B).

(D) The remanufacturer or other person that stores or treats the hazardous secondary material shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the procedure contained in Subsections R315-261-1084(f)(3)(i)(D)(I) through R315-261-1084(f)(3)(i)(D)(IV):

(I) The seal gap measurements shall be performed at one or more floating roof levels if the roof is floating off the roof supports.

(II) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter diameter uniform probe passes freely, without forcing or binding against the seal, between the seal and the wall of the tank and measure the circumferential distance of each location.

(III) For a seal gap measured under Subsection R315-261-1084(f)(3), the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each width by its respective circumferential distance.

(IV) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type as specified in Subsection R315-261-1084(f)(1)(ii).

(E) In the event that the seal gap measurements do not conform to the specifications in Subsection R315-261-1084(f)(1)(ii), the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(F) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the external floating roof in accordance with the requirements in Subsections R315-261-1084(f)(3)(ii)(A) through R315-261-1084(f)(3)(ii)(D):

(A) The floating roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include: Holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; the floating roof deck or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(B) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to Section R315-261-1084. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once each year except for the special conditions provided for in Subsection R315-261-1084(l).

(C) In the event that a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(D) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(iii) Before each inspection required by Subsection R315-261-1084(f)(3)(i) or R315-261-1084(f)(3)(ii), the remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director in advance of each inspection to provide the director with the opportunity to have an observer present during the inspection. The remanufacturer or other person that stores or treats the hazardous secondary material shall notify the director of the date and location of the inspection as follows:

(A) Before each inspection to measure external floating roof seal gaps as required under Subsection R315-261-1084(f)(3)(i), written notification shall be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material so that it is received by the director at least 30 calendar days before the date the measurements are scheduled to be performed.

(B) Before each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the remanufacturer or other person that stores or treats the hazardous secondary material so that it is received by the director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-261-1084(f)(3)(iii)(C).

(C) If a visual inspection is not planned and the remanufacturer or other person that stores or treats the hazardous secondary material could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the director as soon as possible, but no later than seven calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the director at least seven calendar days before refilling the tank.

(4) Safety devices, as defined in Section R315-261-1081, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-261-1084(f).

(g) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in Subsections R315-261-1084(g)(1) through R315-261-1084(g)(3).

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the requirements specified in Subsections R315-261-1084(g)(1)(i) through R315-261-1084(g)(1)(iv):

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate so that if the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank that has a fixed roof installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-261-1087.

(2) If a hazardous secondary material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed in accordance with Subsections R315-261-1084(g)(2)(i)(A) and R315-261-1084(g)(2)(i)(B):

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of these activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of a tank.

(ii) Opening of a safety device, as defined in Section R315-261-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the air emission control equipment in accordance with the procedures specified in Subsections R315-261-1084(g)(3)(i) through R315-261-1084(g)(3)(v):

(i) The fixed roof and its closure devices shall be visually inspected by the remanufacturer or other person that stores or treats the hazardous secondary material to check for defects that could result in air pollutant emissions. Defects include visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The closed-vent system and control device shall be inspected and monitored by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the procedures specified in Section R315-261-1087.

(iii) The remanufacturer or other person that stores or treats the hazardous secondary material shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to Section R315-261-1084. Thereafter, the remanufacturer or other person that stores or treats the hazardous secondary material shall perform the inspections at least once each year except for the special conditions provided for in Subsection R315-261-1084(l).

(iv) In the event that a defect is detected, the remanufacture or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1084(k).

(v) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-261-1089(b).

(h) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions by using a pressure tank shall meet the requirements of Subsections R315-261-1084(h)(1) through R315-261-1084(h)(3).

(1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(2) Each tank opening shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Subsection R315-261-1083(d).

(3) If a hazardous secondary material is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except under either of the conditions specified in Subsection R315-261-1084(h)(3)(i) or R315-261-1084(h)(3)(ii).

(i) At those times when opening of a safety device, as defined in Section R315-261-1081, is required to avoid an unsafe condition.

(ii) At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section R315-261-1087.

(i) The remanufacturer or other person that stores or treats the hazardous secondary material who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in Subsections R315-261-1084(i)(1) through R315-261-1084(i)(4).

(1) The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(2) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section R315-261-1087.

(3) Safety devices, as defined in Section R315-261-1081, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of Subsections R315-261-1084(i)(1) and R315-261-1084(i)(2).

(4) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor the closed-vent system and control device as specified in Section R315-261-1087.

(j) The remanufacturer or other person that stores or treats the hazardous secondary material shall transfer hazardous secondary material to a tank subject to Section R315-261-1084 in accordance with the requirements of Subsection R315-261-1084(j)(1) or R315-261-1084(j)(2):

(1) Transfer of hazardous secondary material, except as provided in Subsection R315-261-1084(j)(2), to the tank from another tank subject to Section R315-261-1084 shall be conducted using continuous hard piping or another closed system that does not allow exposure of the hazardous secondary material to the atmosphere. For complying with this provision, an individual drain system is considered to be a closed system if it meets the requirements of 40 CFR part 63, subpart RR - National Emission Standards for Individual Drain Systems.

(2) The requirements of Subsection R315-261-1084(j)(1) do not apply when transferring a hazardous secondary material to the tank under any of the conditions specified in Subsections R315-261-1084(j)(2)(i) through R315-261-1084(j)(2)(iii):

(i) The hazardous secondary material meets the average VO concentration conditions specified in Subsection R315-261-1082(c) at the point of material origination.

(ii) The hazardous secondary material has been treated by an organic destruction or removal process to meet the requirements in Subsection R315-261-1082(c)(2).

(iii) The hazardous secondary material meets the requirements of Subsection R315-261-1082(c)(4).

(k) The remanufacturer or other person that stores or treats the hazardous secondary material shall repair each defect detected during an inspection performed in accordance with the requirements of Subsection R315-261-1084(c)(4), R315-261-1084(e)(3), R315-261-1084(f)(3), or R315-261-1084(g)(3) as follows:

(1) The remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than five calendar days after detection, and repair shall be finished as soon as possible but no later than 45 calendar days after detection except as provided in Subsection R315-261-1084(k)(2).

(2) Repair of a defect may be delayed beyond 45 calendar days if the remanufacturer or other person that stores or treats the hazardous secondary material determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous secondary material normally managed in the tank. In this case, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect the next time the process or unit that is generating the hazardous secondary material managed in the tank stops operation. Repair of the defect shall be finished before the process or unit resumes operation.

(l) Following the initial inspection and monitoring of the cover as required by Sections R315-261-1080 through R315-261-1089, subsequent inspection and monitoring may be performed at intervals longer than 1 year under the special conditions specified in Subsections R315-261-1084(l)(1) and R315-261-1084(l)(2):

(1) If inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the remanufacturer or other person that stores or treats the hazardous secondary material may designate a cover as an unsafe to inspect and monitor cover and comply with the requirements in Subsections R315-261-1084(l)(1)(i) and R315-261-1084(l)(1)(ii):

(i) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

(ii) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of Sections R315-261-1080 through R315-261-1089, as often as practicable during those times when a worker can safely access the cover.

(2) If a tank is buried partially or entirely underground, a remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor, as required by Section R315-261-1084, only those portions of the tank cover and those connections to the tank, for example, fill ports, access hatches, and gauge wells, that are located on or above the ground surface.

R315-261-1086. Air Emission Standards for Tanks and Containers - Standards: Containers.

(a) Applicability. The provisions of Section R315-261-1086 apply to the control of air pollutant emissions from containers for which Subsection R315-261-1082(b) references the use Section R315-261-1086 for such air emission control.

(b) General requirements.

(1) The remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from each container subject to Section R315-261-1086 in accordance with the following requirements, as applicable to the container.

(i) For a container having a design capacity greater than 0.1 m^3 and less than or equal to 0.46 m^3, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-261-1086(c).

(ii) For a container having a design capacity greater than 0.46 m^3 that is not in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-261-1086(c).

(iii) For a container having a design capacity greater than 0.46 m^3 that is in light material service, the remanufacturer or other person that stores or treats the hazardous secondary material shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in Subsection R315-261-1086(d).

(c) Container Level 1 standards.

(1) A container using Container Level 1 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation regulations on packaging hazardous materials for transportation as specified in Subsection R315-261-1086(f).

(ii) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container, e.g., a lid on a drum or a suitably secured tarp on a roll-off box, or may be an integral part of the container structural design, e.g., a "portable tank" or bulk cargo container equipped with a screw-type cap.

(iii) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous secondary material in the container such that no hazardous secondary material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(2) A container used to meet the requirements of Subsection R315-261-1086(c)(1)(ii) or (iii) shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous secondary material to the atmosphere and to maintain the equipment integrity, for as long as the container is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of contact with the hazardous secondary material or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

(3) Whenever a hazardous secondary material is in a container using Container Level 1 controls, the remanufacturer or other person that stores or treats the hazardous secondary material shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the hazardous secondary material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-261-1086, an empty hazardous secondary material container may be open to the atmosphere at any time, i.e., covers and closure devices on such a container are not required to be secured in the closed position.

(B) In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other persons that stores or treats the hazardous secondary material based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in 40 CFR 261.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacturer or other person that stores or treats the hazardous secondary material using containers with Container Level 1 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, i.e., is not an empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility, i.e., the date the container becomes subject to the container standards of Section R315-261-1086.

(ii) In the case when a container used for managing hazardous secondary material remains at the facility for a period of 1 year or more, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices

initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1086(c)(4)(iii).

(iii) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 24 hours after detection and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(5) The remanufacturer or other person that stores or treats the hazardous secondary material shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m^3 or greater, which do not meet applicable U.S. Department of Transportation regulations as specified in Subsection R315-261-1086(f), are not managing hazardous secondary material in light material service.

(d) Container Level 2 standards.

(1) A container using Container Level 2 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation regulations on packaging hazardous materials for transportation as specified in Subsection R315-261-1086(f).

(ii) A container that operates with no detectable organic emissions as defined in Section R315-261-1081 and determined in accordance with the procedure specified in Subsection R315-261-1086(g).

(iii) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR part 60, appendix A, Method 27 in accordance with the procedure specified in Subsection R315-261-1086(h).

(2) Transfer of hazardous secondary material in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-261-1086(d) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

(3) Whenever a hazardous secondary material is in a container using Container Level 2 controls, the remanufacturer or other person that stores or treats the hazardous secondary material shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous secondary material or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the remanufacture or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous secondary material from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-261-1086, an empty hazardous secondary material container may be open to the atmosphere at any time, i.e., covers and closure devices are not required to be secured in the closed position on an empty container.

(B) In the case when discrete quantities or batches of material are removed from the container, but the container is not an empty hazardous secondary materials container, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous secondary material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the remanufacturer or other person that stores or treats the hazardous secondary material shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the remanufacturer or other person that stores or treats the hazardous secondary material based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in Section R315-261-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The remanufacture or other person that stores or treats the hazardous secondary material using containers with Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous secondary material already is in the container at the time the remanufacturer or other person that stores or treats the hazardous secondary material first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, i.e., is not an empty hazardous secondary material container, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into

the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility, i.e., the date the container becomes subject to the container standards of Section R315-261-1086.

(ii) In the case when a container used for managing hazardous secondary material remains at the facility for a period of 1 year or more, the remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the remanufacturer or other person that stores or treats the hazardous secondary material shall repair the defect in accordance with the requirements of Subsection R315-261-1086(d)(4)(iii).

(iii) When a defect is detected for the container, cover, or closure devices, the remanufacturer or other person that stores or treats the hazardous secondary material shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous secondary material shall be removed from the container and the container shall not be used to manage hazardous secondary material until the defect is repaired.

(e) Container Level 3 standards.

(1) A container using Container Level 3 controls is one of the following:

(i) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of Subsection R315-261-1086(e)(2)(ii).

(ii) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of Subsections R315-261-1086(e)(2)(i) and (ii).

(2) The remanufacturer or other person that stores or treats the hazardous secondary material shall meet the following requirements, as applicable to the type of air emission control equipment selected by the remanufacturer or other person that stores or treats the hazardous secondary material:

(i) The container enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The remanufacturer or other person that stores or treats the hazardous secondary material shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-261-1087.

(3) Safety devices, as defined in Section R315-261-1081, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of Subsection R315-261-1086(e)(1).

(4) Remanufacturers or other persons that store or treat the hazardous secondary material using Container Level 3 controls in accordance with the provisions of Sections R315-261-1080 through 1089 shall inspect and monitor the closed-vent systems and control devices as specified in Section R315-261-1087.

(5) Remanufacturers or other persons that store or treat the hazardous secondary material that use Container Level 3 controls in accordance with the provisions of Sections R315-261-1080 through 1089 shall prepare and maintain the records specified in Subsection R315-261-1089(d).

(6) Transfer of hazardous secondary material in or out of a container using Container Level 3 controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-261-1086(e) include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

(f) For the purpose of compliance with Subsection R315-261-1086(c)(1)(i) or (d)(1)(i), containers shall be used that meet the applicable U.S. Department of Transportation regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178 or part 179.

(2) Hazardous secondary material is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107, subpart B and 49 CFR parts 172, 173, and 180.

(3) For the purpose of complying with Sections R315-261-1080 through 1089, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed.

(g) To determine compliance with the no detectable organic emissions requirement of Subsection R315-261-1086(d)(1)(ii), the procedure specified in Subsection R315-261-1083(d) shall be used.

(1) Each potential leak interface, i.e., a location where organic vapor leakage could occur, on the container, its cover, and associated closure devices, as applicable to the container, shall be checked. Potential leak interfaces that are associated with containers include, but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous secondary materials expected to be managed in this type of container. During the test, the container cover and closure devices shall be secured in the closed position.

(h) Procedure for determining a container to be vapor-tight using Method 27 of 40 CFR part 60, appendix A for the purpose of complying with Subsection R315-261-1086(d)(1)(iii).

(1) The test shall be performed in accordance with Method 27 of 40 CFR part 60, appendix A.

(2) A pressure measurement device shall be used that has a precision of +/- 2.5 mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

(3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

R315-261-1087. Air Emission Standards for Tanks and Containers - Standards: Closed-Vent Systems and Control Devices.

(a) Section R315-261-1087 applies to each closed-vent system and control device installed and operated by the remanufacturer or other person who stores or treats the hazardous secondary material to control air emissions in accordance with standards of Sections R315-261-1080 through 1089.

(b) The closed-vent system shall meet the following requirements:

(1) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous secondary material in the hazardous secondary material management unit to a control device that meets the requirements specified in Subsection R315-261-1087(c).

(2) The closed-vent system shall be designed and operated in accordance with the requirements specified in Subsection R315-261-1033(k).

(3) In the case when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in Subsection R315-261-1087(b)(3)(i) or a seal or locking device as specified in Subsection R315-261-1087(b)(3)(ii). For the purpose of complying with Subsection R315-261-1087(b)(3), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

(i) If a flow indicator is used to comply with Subsection R315-261-1087(b)(3), the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For Subsection R315-261-1087(b), a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.

(ii) If a seal or locking device is used to comply with Subsection R315-261-1087(b)(3), the device shall be placed on the mechanism by which the bypass device position is controlled, e.g., valve handle, damper lever, when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The remanufacturer or other person that stores or treats the hazardous secondary material shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

(4) The closed-vent system shall be inspected and monitored by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the procedure specified in Subsection R315-261-1033(l).

(c) The control device shall meet the following requirements:

(1) The control device shall be one of the following devices:

(i) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;

(ii) An enclosed combustion device designed and operated in accordance with the requirements of Subsection R315-261-1033(c); or

(iii) A flare designed and operated in accordance with the requirements of Subsection R315-261-1033(d).

(2) The remanufacturer or other person that stores or treats the hazardous secondary material who elects to use a closed-vent system and control device to comply with the requirements Section R315-261-1087 shall comply with the requirements specified in Subsections R315-261-1087(c)(2)(i) through (vi).

(i) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of Subsection R315-261-1087(c)(1)(i), (ii), or (iii), as applicable, shall not exceed 240 hours per year.

(ii) The specifications and requirements in Subsections R315-261-1087(c)(1)(i) through (iii) for control devices do not apply during periods of planned routine maintenance.

(iii) The specifications and requirements in Subsections R315-261-1087(c)(1)(i) through (iii) for control devices do not apply during a control device system malfunction.

(iv) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate compliance with the requirements of Subsection R315-261-1087(c)(2)(i), i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of Subsection R315-261-1087(c)(1)(i), (ii), or (iii), as applicable, shall not exceed 240 hours per year, by recording the information specified in Subsection R315-261-1089(e)(1)(v).

(v) The remanufacturer or other person that stores or treats the hazardous secondary material shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

(vi) The remanufacturer or other person that stores or treats the hazardous secondary material shall operate the closed-vent system such that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction, i.e., periods when the control device is not operating or not operating normally, except in cases when it is necessary to vent the gases, vapors, and/or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

(3) The remanufacturer or other person that stores or treats the hazardous secondary material using a carbon adsorption system to comply with Subsection R315-261-1087(c)(1) shall operate and maintain the control device in accordance with the following requirements:

(i) Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of Subsection R315-261-1033(g) or (h).

(ii) All carbon that is hazardous waste and that is removed from the control device shall be managed in accordance with the requirements of Subsection R315-261-1033(n), regardless of the average volatile organic concentration of the carbon.

(4) A remanufacturer or other person that stores or treats the hazardous secondary material using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with Subsection R315-261-1087(c)(1) shall operate and maintain the control device in accordance with the requirements of Subsection R315-261-1033(j).

(5) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate that a control device achieves the performance requirements of Subsection R315-261-1087(c)(1) as follows:

(i) A remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate using either a performance test as specified in Subsection R315-261-1087(c)(5)(iii) or a design analysis as specified in Subsection R315-261-1087(c)(5)(iv) the performance of each control device except for the following:

(A) A flare;

(B) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

(C) A boiler or process heater into which the vent stream is introduced with the primary fuel;

(ii) A remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate the performance of each flare in accordance with the requirements specified in Subsection R315-261-1033(e).

(iii) For a performance test conducted to meet the requirements of Subsection R315-261-1087(c)(5)(i), the remanufacturer or other person that stores or treats the hazardous secondary material shall use the test methods and procedures specified in Subsections R315-261-1034(c)(1) through (4).

(iv) For a design analysis conducted to meet the requirements of Subsection R315-261-1087(c)(5)(i), the design analysis shall meet the requirements specified in Subsection R315-261-1035(b)(4)(iii).

(v) The remanufacturer or other person that stores or treats the hazardous secondary material shall demonstrate that a carbon adsorption system achieves the performance requirements of Subsection R315-261-1087(c)(1) based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

(6) If the remanufacturer or other person that stores or treats the hazardous secondary material and the Director do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the remanufacturer or other person that stores or treats the hazardous secondary material in accordance with the requirements of Subsection R315-261-1087(c)(5)(iii). The Director may choose to have an authorized representative observe the performance test.

(7) The closed-vent system and control device shall be inspected and monitored by the remanufacture or other person that stores or treats the hazardous secondary material in accordance with the procedures specified in Subsections R315-261-1033(f)(2) and (l). The readings from each monitoring device required by Subsection R315-261-1033(f)(2) shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures shall be immediately implemented to ensure the control device is operated in compliance with the requirements Section R315-261-1087.

R315-261-1088. Air Emission Standards for Tanks and Containers - Inspection and Monitoring Requirements.

(a) The remanufacturer or other person that stores or treats the hazardous secondary material shall inspect and monitor air emission control equipment used to comply with Sections R315-261-1080 through 1089 in accordance with the applicable requirements specified in Sections R315-261-1084 through 1087.

(b) The remanufacture or other person that stores or treats the hazardous secondary material shall develop and implement a written plan and schedule to perform the inspections and monitoring required by Subsection R315-261-1088(a). The remanufacturer or other person that stores or treats the hazardous secondary material shall keep the plan and schedule at the facility.

R315-261-1089. Air Emission Standards for Tanks and Containers - Recordkeeping Requirements.

(a) Each remanufacturer or other person that stores or treats the hazardous secondary material subject to requirements of Sections R315-261-1080 through R315-261-1089 shall record and maintain the information specified in Subsections R315-261-1089(b) through R315-261-1089(j), as applicable to the facility. Except for air emission control equipment design documentation and information required by Subsections R315-261-1089(i) and R315-261-1089(j), records required by Section R315-261-1089 shall be maintained at the facility for a minimum of three years. Air emission control equipment design documentation shall be maintained at the facility until the air emission control equipment is replaced or otherwise no longer in service. Information required by Subsections R315-261-1089(i) and R315-261-1089(j) shall be maintained at the facility for as long as the hazardous secondary material management unit is not using air emission controls specified in Sections R315-261-1084 through R315-261-1087 in accordance with the conditions specified in Subsection R315-261-1080(a).

(b) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank with air emission controls in accordance with the requirements of Section R315-261-1084 shall prepare and maintain records for the tank that include the information required by Subsections R315-261-1089(b)(1) and R315-261-1089(b)(2):

(1) For each tank using air emission controls in accordance with the requirements of Section R315-261-1084, the remanufacturer or other person that stores or treats the hazardous secondary material shall record:

(i) A tank identification number, or other unique identification description as selected by the remanufacturer or other person that stores or treats the hazardous secondary material.

(ii) A record for each inspection required by Section R315-261-1084 that includes the information required by Subsections R315-261-1089(b)(1)(ii)(A) and R316-261-1089(b)(1)(ii)(B):

(A) Date inspection was conducted.

(B) For each defect detected during the inspection: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the requirements of Section R315-261-1084, the remanufacturer or other person that stores or treats the hazardous secondary material shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(2) In addition to the information required by Subsection R315-261-1089(b)(1), the remanufacturer or other person that stores or treats the hazardous secondary material shall record the information required by Subsection R315-261-1089(b)(2)(i), R315-261-1089(b)(2)(ii) or R315-261-1089(b)(2)(iii), as applicable to the tank:

(i) The remanufacturer or other person that stores or treats the hazardous secondary material using a fixed roof to comply with the Tank Level 1 control requirements specified in Subsection R315-261-1084(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous secondary material in the tank performed in accordance with the requirements of Subsection R315-261-1084(c). The records shall include the date and time the samples were collected, the analysis method used, and the analysis results.

(ii) The remanufacturer or other person that stores or treats the hazardous secondary material using an internal floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-261-1084(e) shall prepare and maintain documentation describing the floating roof design.

(iii) Remanufacturer or other persons that store or treat the hazardous secondary material using an external floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-261-1084(f) shall prepare and maintain the records required by Subsections R315-261-1089(b)(2)(iii)(A) and R315-261-1089(b)(2)(iii)(B):

(A) Documentation describing the floating roof design and the dimensions of the tank.

(B) Records for each seal gap inspection required by Subsection R315-261-1084(f)(3) describing the results of the seal gap measurements. The records shall include the date that the measurements were performed, the raw data received for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Subsection R315-261-1084(f)(1), the records shall include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

(iv) Each remanufacturer or other person that stores or treats the hazardous secondary material using an enclosure to comply with the Tank Level 2 control requirements specified in Subsection R315-261-1084(i) shall prepare and maintain the records required by Subsections R315-261-1089(b)(2)(iv)(A) and R315-261-1089(b)(2)(iv)(B):

(A) Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

(B) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-261-1089(e).

(c) Reserved

(d) The remanufacturer or other person that stores or treats the hazardous secondary material using containers with Container Level 3 air emission controls in accordance with the requirements of Section R315-261-1086 shall prepare and maintain records that include the information required by Subsections R315-261-1089(d)(1) and R315-261-1089(d)(2):

(1) Records for the most recent set of calculations and measurements performed by the remanufacturer or other person that stores or treats the hazardous secondary material to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

(2) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-261-1089(e).

(e) The remanufacturer or other person that stores or treats the hazardous secondary material using a closed-vent system and control device in accordance with the requirements of Section R315-261-1087 shall prepare and maintain records that include the information required by Subsection R315-261-1089(e)(1):

(1) Documentation for the closed-vent system and control device that includes:

(i) Certification that is signed and dated by the remanufacturer or other person that stores or treats the hazardous secondary material stating that the control device is designed to operate at the performance level documented by a design analysis as specified in Subsection R315-261-1089(e)(1)(ii) or by performance tests as specified in Subsection R315-261-1089(e)(1)(iii) when the tank or container is or would be operating at capacity or the highest level reasonably expected to occur.

(ii) If a design analysis is used, then design documentation as specified in Subsection R315-261-1035(b)(4). The documentation shall include information prepared by the remanufacturer or other person that stores or treats the hazardous secondary material or provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsection R315-261-1035(b)(4)(iii) and certification by the remanufacturer or other person that stores or treats the hazardous secondary material that the control equipment meets the applicable specifications.

(iii) If performance tests are used, then a performance test plan as specified in Subsection R315-261-1035(b)(3) and the test results.

(iv) Information as required by Subsections R315-261-1035(c)(1) and R315-261-1035(c)(2), as applicable.

(v) A remanufacturer or other person that stores or treats the hazardous secondary material shall record, on a semiannual basis, the information specified in Subsections R315-261-1089(e)(1)(v)(A) and R315-261-1089(e)(1)(v)(B) for those planned routine maintenance operations that would require the control device not to meet the requirements of Subsection R315-261-1087(c)(1)(i), R315-261-1087(c)(1)(ii), or R315-261-1087(c)(1)(iii), as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6-month period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6-month period. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of Subsection R315-261-1087(c)(1)(i), R315-261-1087(c)(1)(ii), or R315-261-1087(c)(1)(iii), as applicable, due to planned routine maintenance.

(vi) A remanufacturer or other person that stores or treats the hazardous secondary material shall record the information specified in Subsections R315-261-1089(e)(1)(vi)(A) through R315-261-1089(e)(1)(vi)(C) for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Subsection R315-261-1087(c)(1)(i), R315-261-1087(c)(1)(ii), or R315-261-1087(c)(1)(iii), as applicable.

(A) The occurrence and duration of each malfunction of the control device system.

(B) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the hazardous secondary material management unit through the closed-vent system to the control device while the control device is not properly functioning.

(C) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

(vii) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Subsection R315-261-1087(c)(3)(ii).

(f) The remanufacturer or other person that stores or treats the hazardous secondary material using a tank or container exempted under the hazardous secondary material organic concentration conditions specified in Subsection R315-261-1082(c), shall prepare and maintain at the facility records documenting the information used for each material determination, for example, test results, measurements, calculations, and other documentation. If analysis results for material samples are used for the material determination, then the remanufacturer or other person that stores or treats the hazardous secondary material shall record the date, time, and location that each material sample is collected in accordance with applicable requirements of Section R315-261-1083.

(g) A remanufacturer or other person that stores or treats the hazardous secondary material designating a cover as unsafe to inspect and monitor pursuant to Subsection R315-261-1084(l) shall record and keep at facility the information required by Subsections R315-261-1089(g)(1) through R315-261-1089(g)(3):

(1) the identification numbers for hazardous secondary material management units with covers that are designated as unsafe to inspect and monitor;

(2) the explanation for each cover stating why the cover is unsafe to inspect and monitor; and

(3) the plan and schedule for inspecting and monitoring each cover.

(h) The remanufacturer or other person that stores or treats the hazardous secondary material that is subject to Sections R315-261-1080 through R315-261-1089 and to the control device standards in 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, may elect to demonstrate compliance with the applicable sections of Sections R315-261-1080 through R315-261-1089 by documentation either pursuant to Sections R315-261-1080 through R315-261-1089, or pursuant to 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR parts 60 or 61 duplicates the documentation required by Section R315-261-1089.

R315-261-1090. Appendix I to Rule R315-261 -- Representative Sampling Methods.

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, shall be considered by the Agency to be representative of the waste.

Extremely viscous liquid-ASTM Standard D140-70 Crushed or powdered material-ASTM Standard D346-75 Soil or rock-like material-ASTM Standard D420-69 Soil-like material-ASTM Standard D1452-65

Fly Ash-like material-ASTM Standard D2234-76, ASTM Standards are available from ASTM, 1916 Race St., Philadelphia, PA 19103

Containerized liquid waste-"COLIWASA."

Liquid waste in pits, ponds, lagoons, and similar reservoirs-"Pond Sampler."
This manual also contains additional information on application of these protocols.

R315-261-1091. Appendix VII to Rule R315-261-Basis for Listing Hazardous Waste.

TABLE

EPA hazardous waste No.	Hazardous constituents for which listed
F001	Tetrachloroethylene, methylene chloride trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane.
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra and pentachlorodi-benzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F021	Penta- and hexachlorodibenzo-p- dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.
F023	Tetra-, and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.
F024	Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1-2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetra-chloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorbenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzene, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.
F025	Chloromethane; Dichloromethane; Trichloromethane; Carbon tetrachloride; Chloroethylene; 1,1-Dichloroethane; 1,2-Dichloroethane; trans-1,2-Dichloroethylene; 1,1-Dichloroethylene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; Trichloroethylene; 1,1,1,2-Tetrachloroethane; 1,1,2,2-Tetrachloroethane; Tetrachloroethylene; Pentachloroethane; Hexachloroethane; Allyl chloride (3-Chloropropene); Dichloropropane; Dichloropropene; 2-Chloro-1,3-butadiene; Hexachloro-1,3-butadiene; Hexachlorocyclopentadiene; Benzene; Chlorobenzene; Dichlorobenzene; 1,2,4-Trichlorobenzene; Tetrachlorobenzene; Pentachlorobenzene; Hexachlorobenzene; Toluene; Naphthalene.
F026	Tetra-, penta-, and hexachlorodibenzo-p-dioxins;

tetra-, penta-, and hexachlorodibenzofurans.

F027 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

F028 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

F032 Benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)-anthracene, indeno(1,2,3-cd)pyrene, pentachlorophenol, arsenic, chromium, tetra-, penta-, hexa-, heptachlorodibenzo-p-dioxins, tetra-, penta-, hexa-, heptachlorodibenzofurans.

F034 Benz(a)anthracene, benzo(k)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene, arsenic, chromium.

F035 Arsenic, chromium, lead.

F037 Benzene, benzo(a)pyrene, chrysene, lead, chromium.

F038 Benzene, benzo(a)pyrene, chrysene, lead, chromium.

F039 All constituents for which treatment standards are specified for multi-source leachate (wastewaters and nonwastewaters) under Section R315-268-43, Table CCW.

F999 CX, GA, GB, GD, H, HD, HL, HN-1, HN-2, HN-3, HT, L, T, and VX.

K001 Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenyl, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, creosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene.

K002 Hexavalent chromium, lead

K003 Hexavalent chromium, lead.

K004 Hexavalent chromium.

K005 Hexavalent chromium, lead.

K006 Hexavalent chromium.

K007 Cyanide (complexed), hexavalent chromium.

K008 Hexavalent chromium.

K009 Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.

K010 Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.

K011 Acrylonitrile, acetonitrile, hydrocyanic acid.

K013 Hydrocyanic acid, acrylonitrile, acetonitrile.

K014 Acetonitrile, acrylamide.

K015 Benzyl chloride, chlorobenzene, toluene, benzotrichloride.

K016 Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.

K017 Epichlorohydrin, chloroethers (bis(chloromethyl) ether and bis (2-chloroethyl) ethers), trichloropropane, dichloropropanols.

K018 1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.

K019 Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.

K020 Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.

K021 Antimony, carbon tetrachloride, chloroform.

K022 Phenol, tars (polycyclic aromatic hydrocarbons).

K023 Phthalic anhydride, maleic anhydride.

K024 Phthalic anhydride, 1,4-naphthoquinone.

K025 Meta-dinitrobenzene, 2,4-dinitrotoluene.

K026 Paraldehyde, pyridines, 2-picoline.

K027 Toluene diisocyanate, toluene-2, 4-diamine.
K028 1,1,1-trichloroethane, vinyl chloride.
K029 1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.
K030 Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.
K031 Arsenic.
K032 Hexachlorocyclopentadiene.
K033 Hexachlorocyclopentadiene.
K034 Hexachlorocyclopentadiene.
K035 Creosote, chrysene, naphthalene, fluoranthene benzo(b) fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.
K036 Toluene, phosphorodithioic and phosphorothioic acid esters.
K037 Toluene, phosphorodithioic and phosphorothioic acid esters.
K038 Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K039 Phosphorodithioic and phosphorothioic acid esters.
K040 Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.
K041 Toxaphene.
K042 Hexachlorobenzene, ortho-dichlorobenzene.
K043 2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.
K044 N.A.
K045 N.A.
K046 Lead.
K047 N.A.
K048 Hexavalent chromium, lead.
K049 Hexavalent chromium, lead.
K050 Hexavalent chromium.
K051 Hexavalent chromium, lead.
K052 Lead.
K060 Cyanide, napthalene, phenolic compounds, arsenic.
K061 Hexavalent chromium, lead, cadmium.
K062 Hexavalent chromium, lead.
K069 Hexavalent chromium, lead, cadmium.
K071 Mercury.
K073 Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.
K083 Aniline, diphenylamine, nitrobenzene, phenylenediamine.
K084 Arsenic.
K085 Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.
K086 Lead, hexavalent chromium.
K087 Phenol, naphthalene.
K088 Cyanide (complexes).
K093 Phthalic anhydride, maleic anhydride.
K094 Phthalic anhydride.
K095 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.
K096 1,2-dichloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane.
K097 Chlordane, heptachlor.
K098 Toxaphene.
K099 2,4-dichlorophenol, 2,4,6-trichlorophenol.
K100 Hexavalent chromium, lead, cadmium.
K101 Arsenic.
K102 Arsenic.
K103 Aniline, nitrobenzene, phenylenediamine.
K104 Aniline, benzene, diphenylamine, nitrobenzene, phenylenediamine.
K105 Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.
K106 Mercury.
K107 1,1-Dimethylhydrazine (UDMH).
K108 1,1-Dimethylhydrazine (UDMH).
K109 1,1-Dimethylhydrazine (UDMH).
K110 1,1-Dimethylhydrazine (UDMH).
K111 2,4-Dinitrotoluene.
K112 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.
K113 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.

K114 2,4-Toluenediamine, o-toluidine, p-toluidine.
K115 2,4-Toluenediamine.
K116 Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.
K117 Ethylene dibromide.
K118 Ethylene dibromide.
K123 Ethylene thiourea.
K124 Ethylene thiourea.
K125 Ethylene thiourea.
K126 Ethylene thiourea.
K131 Dimethyl sulfate, methyl bromide.
K132 Methyl bromide.
K136 Ethylene dibromide.
K141 Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K142 Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K143 Benzene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene.
K144 Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene.
K145 Benzene, benz(a)anthracene, benzo(a)pyrene, dibenz(a,h)anthracene, naphthalene.
K147 Benzene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K148 Benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene.
K149 Benzotrichloride, benzyl chloride, chloroform, chloromethane, chlorobenzene, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, toluene.
K150 Carbon tetrachloride, chloroform, chloromethane, 1,4-dichlorobenzene, hexachlorobenzene, pentachlorobenzene, 1,2,4,5-tetrachlorobenzene, 1,1,2,2-tetrachloroethane, tetrachloroethylene, 1,2,4-trichlorobenzene.
K151 Benzene, carbon tetrachloride, chloroform, hexachlorobenzene, pentachlorobenzene, toluene, 1,2,4,5-tetrachlorobenzene, tetrachloroethylene.
K156 Benomyl, carbaryl, carbendazim, carbofuran, carbosulfan, formaldehyde, methylene chloride, triethylamine.
K157 Carbon tetrachloride, formaldehyde, methyl chloride, methylene chloride, pyridine, triethylamine.
K158 Benomyl, carbendazim, carbofuran, carbosulfan, chloroform, methylene chloride.
K159 Benzene, butylate, eptc, molinate, pebulate, vernolate.
K161 Antimony, arsenic, metam-sodium, ziram.
K169 Benzene.
K170 Benzo(a)pyrene, dibenz(a,h)anthracene, benzo (a) anthracene, benzo (b)fluoranthene, benzo(k)fluoranthene, 3-methylcholanthrene, 7, 12-dimethylbenz(a)anthracene.
K171 Benzene, arsenic.
K172 Benzene, arsenic.
K174 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD), 1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF), 1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,6,7,8,9-HpCDF), HxCDDs (All Hexachlorodibenzo-p-dioxins), HxCDFs (All Hexachlorodibenzofurans), PeCDDs (All Pentachlorodibenzo-p-dioxins), OCDD (1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin, OCDF (1,2,3,4,6,7,8,9-Octachlorodibenzofuran), PeCDFs (All Pentachlorodibenzofurans), TCDDs (All tetrachlorodi-benzo-p-dioxins), TCDFs (All tetrachlorodibenzofurans).
K175 Mercury
K176 Arsenic, Lead.
K177 Antimony.
K178 Thallium.
K181 Aniline, o-anisidine, 4-chloroaniline, p-cresidine, 2,4-dimethylaniline, 1,2-phenylenediamine, 1,3-phenylenediamine.

N.A.-Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity, or reactivity.

R315-261-1092. Appendix VIII to Rule 315-261-Hazardous Constituents.

Appendix VIII to 40 CFR Part 261, 2015 Ed., is adopted and incorporated by reference, with the following addition:

(a) P999 - CX, GA, GB, GD, H, HD, HL, HN-1, HN-2, HN-3, HT, L, T, and VX.

R315-261-1093. Appendix IX to Rule 315-261-Hazardous Constituents.

Appendix IX to 40 CFR Part 261, 2022 Ed., is incorporated by reference

KEY: hazardous waste
Date of Last Change: January 13, 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-262**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
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Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-262. Hazardous Waste Generator Requirements	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments were received since the last five-year review of this rule.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
Rule R315-262 establishes standards for generators of hazardous waste. These standards are required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-262. Hazardous Waste Generator Requirements.

R315-262-1. General -- Terms Used in Rule R315-262.

(a) As used in Rule R315-262:

(1) "Condition for exemption" means any requirement in Sections R315-262-14, R315-262-15, R315-262-16, R315-262-17, R315-262-70, or Sections R315-262-200 through R315-262-216 or Sections R315-262-230 through R315-262-233 that states an event, action, or standard that shall occur or be met to get an exemption from any applicable requirement in Rules R315-124, R315-264 through R315-268, and R315-270, or from any requirement for notification under Section 3010 of RCRA for treatment, storage, and disposal facilities.

(2) "Independent requirement" means a requirement of Rule R315-262 that states an event, action, or standard that shall occur or be met; and that applies without relation to, or irrespective of, the purpose of getting a conditional exemption from storage facility permit, interim status, and operating requirements under Sections R315-262-14, R315-262-15, R315-262-16, R315-262-17, or Sections R315-262-200 through R315-262-216 or Sections R315-262-230 through R315-262-233.

R315-262-10. General -- Purpose, Scope, and Applicability.

(a) The requirements in Rule R315-262 establish standards for generators of hazardous waste as defined by Section R315-260-10.

(1) A person who generates a hazardous waste as defined by Rule R315-261 is subject to the applicable independent requirements in Subsections R315-262-10(a)(1)(i) through R315-262-10(a)(1)(iii).

(i) Independent requirements of a very small quantity generator:

(A) Subsections R315-262-11(a) through R315-262-11(d) Hazardous waste determination and recordkeeping; and

(B) Section R315-262-13 Generator category determination.

(ii) Independent requirements of a small quantity generator:

(A) Section R315-262-11 Hazardous waste determination and recordkeeping;

(B) Section R315-262-13 Generator category determination;

(C) Section R315-262-18 EPA identification numbers and re-notification for small quantity generators and large quantity generators;

(D) Sections R315-262-20 through R315-262-27--Manifest requirements applicable to small and large quantity generators;

(E) Sections R315-262-30 through R315-262-34--Pre-transport requirements applicable to small and large quantity generators;

(F) Section R315-262-40 Recordkeeping;

(G) Section R315-262-44 Recordkeeping for small quantity generators; and

(H) Sections R315-262-80 through R315-262-84--Transboundary movements of hazardous waste for recovery or disposal.

(iii) Independent requirements of a large quantity generator:

(A) Section R315-262-11 Hazardous waste determination and recordkeeping;

(B) Section R315-262-13 Generator category determination;

(C) Section R315-262-18 EPA identification numbers and re-notification for small quantity generators and large quantity generators;

(D) Sections R315-262-20 through R315-262-27--Manifest requirements applicable to small and large quantity generators;

(E) Sections R315-262-30 through R315-262-34--Pre-transport requirements applicable to small and large quantity generators;

(F) Sections R315-262-40 through R315-262-44--Recordkeeping and reporting applicable to small and large quantity generators, except Section R315-262-44; and

(G) Sections R315-262-80 through R315-262-84--Transboundary movements of hazardous waste for recovery or disposal.

(2) A generator that accumulates hazardous waste on site is a person that stores hazardous waste. The generator is subject to the applicable requirements of Rules R315-124, R315-264 through R315-266, and R315-270 and Section 3010 of RCRA for treatment, storage, and disposal facilities, unless it is one of the following:

(i) a very small quantity generator that meets the conditions for exemption in Section R315-262-14;

(ii) a small quantity generator that meets the conditions for exemption in Sections R315-262-15 and R315-262-16; or

(iii) a large quantity generator that meets the conditions for exemption in Sections R315-262-15 and R315-262-17.

(3) A generator may not transport, offer its hazardous waste for transport, or otherwise cause its hazardous waste to be sent to a facility that is not a designated facility, as defined in Section R315-260-10, or not otherwise authorized to receive the generator's hazardous waste.

(b) Determining generator category. A generator shall use Section R315-262-13 to determine the requirements of Rule R315-262 that are applicable to the generator based on the quantity of hazardous waste generated per calendar month.

(c) Reserved.

(d) Any person who exports or imports hazardous wastes shall comply with Section R315-262-18 and Sections R315-262-80 through R315-262-84.

(e) Any person who imports hazardous waste into the United States shall comply with the standards applicable to generators established in Rule R315-262.

(f) A farmer who generates waste pesticides that are hazardous waste and who complies with the requirements of Section R315-262-70 is not required to comply with other standards in Rule R315-262 or Rule R315-270, R315-264, R315-265, or R315-268 with respect to the waste pesticides.

(1) A generator's violation of an independent requirement is subject to penalty and injunctive relief under Sections 19-6-112

and 19-6-113.

(2) A generator's noncompliance with a condition for exemption in Rule R315-262 is not subject to penalty or injunctive relief under Sections 19-6-112 and 19-6-113 as a violation of a Rule R315-262 condition for exemption. Noncompliance by any generator with an applicable condition for exemption from storage permit and operations requirements means that the facility is a storage facility operating without an exemption from the permit, interim status, and operations requirements in Rules R315-124, R315-264 through R315-266, and R315-270, and the notification requirements of Section 3010 of RCRA. Without an exemption, any violations of the storage requirements are subject to penalty and injunctive relief under Sections 19-6-112 and 19-6-113.

(h) An owner or operator who initiates a shipment of hazardous waste from a treatment, storage, or disposal facility shall comply with the generator standards established in Rule R315-262.

(i) Reserved.

(j) Reserved.

(k) Reserved.

(l) The laboratories owned by an eligible academic entity that chooses to be subject to the requirements of Sections R315-262-200 through R315-262-216 are not subject to, for purposes of Subsection R315-262-10(l), the terms "laboratory" and "eligible academic entity" shall have the meaning as defined in Section R315-262-200:

(1) the independent requirements of Section R315-262-11 or the requirements in Section R315-262-15 for large quantity generators and small quantity generators, except as provided in Sections R315-262-200 through R315-262-216; and

(2) the conditions of Section R315-262-14, for very small quantity generators, except as provided in Sections R315-262-200 through R315-262-216.

(m) Generators of lamps, as defined in Section R315-273-9, using a drum-top crusher, as defined in Section R315-273-9, shall meet the requirements of Subsection R315-273-13(d)(3), except for the registration requirement, and Subsections R315-273-13(d)(4) and R315-273-13(d)(5).

(n) Reverse distributors, as defined in Section R315-266-500, are subject to Sections R315-266-500 through R315-266-510 for the management of hazardous waste pharmaceuticals in lieu of Rule R315-262.

(o) Each healthcare facility, as defined in Section R315-266-500, shall determine whether it is subject to Sections R315-266-500 through R315-266-510 for the management of hazardous waste pharmaceuticals, based on the total hazardous waste it generates per calendar month, including both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste. A healthcare facility that generates more than 100 kg, 220 pounds, of hazardous waste per calendar month, or more than 1 kg, 2.2 pounds, of acute hazardous waste per calendar month, or more than 100 kg, 220 pounds, per calendar month of any residue or contaminated soil, water, or other debris, resulting from the clean up of a spill, into or on any land or water, of any acute hazardous wastes listed in Section R315-261-31 or Subsection R315-261-33(e), is subject to Sections R315-266-500 through R315-266-510 for the management of hazardous waste pharmaceuticals in lieu of Rule R315-262. A healthcare facility that is a very small quantity generator when counting its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, remains subject to Section R315-262-14 and is not subject to Sections R315-266-500 through R315-266-510, except for Sections R315-266-505 and R315-266-507 and the optional requirements of Section R315-266-504.

(p) Sections R315-262-15 through R315-262-17 are applicable to the on-site accumulation of hazardous waste by generators. Therefore, Sections R315-262-15 through R315-262-17 only apply to owners and operators who are shipping hazardous waste that they generated at that facility.

(q) A generator who treats, stores, or disposes of hazardous waste on-site shall comply with the applicable standards and permit requirements set forth in Rules R315-264, R315-265, R315-266, R315-268, and R315-270.

R315-262-11. General -- Hazardous Waste Determination and Recordkeeping.

A person who generates a solid waste, as defined in Section R315-261-2, shall make an accurate determination as to whether that waste is a hazardous waste to ensure wastes are properly managed according to applicable rules. A hazardous waste determination is made using the following steps:

(a) The hazardous waste determination for each solid waste shall be made at the point of waste generation, before any dilution, mixing, or other alteration of the waste occurs, and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that may change the properties of the waste so that the hazardous classification of the waste may change.

(b) A person shall determine whether the solid waste is excluded from regulation under Section R315-261-4.

(c) If the waste is not excluded under Section R315-261-4, the person shall then use knowledge of the waste to determine whether the waste meets any of the listing descriptions under Sections R315-261-30 through R315-261-35. Acceptable knowledge that may be used in making an accurate determination as to whether the waste is listed may include waste origin, composition, the process producing the waste, feedstock, and other reliable and relevant information. If the waste is listed, the person may file a delisting petition under Sections R315-260-20 and R315-260-22 to demonstrate to the director that the waste from this particular site or operation is not a hazardous waste.

(d) The person then shall also determine whether the waste exhibits one or more hazardous characteristics as identified in Sections R315-261-20 through R315-261-24 by following the procedures in Subsection R315-262-11(d)(1) or R315-262-11(d)(2), or a combination of both.

(1) The person shall apply knowledge of the hazard characteristic of the waste in light of the materials or the processes used to generate the waste. Acceptable knowledge may include process knowledge, for example, information about chemical feedstocks and other inputs to the production process; knowledge of products, by-products, and intermediates produced by the manufacturing

process; chemical or physical characterization of wastes; information on the chemical and physical properties of the chemicals used or produced by the process or otherwise contained in the waste; testing that illustrates the properties of the waste; or other reliable and relevant information about the properties of the waste or its constituents. A test other than a test method set forth in Sections R315-261-20 through R315-261-24, or an equivalent test method approved by the director under Section R315-260-21, may be used as part of a person's knowledge to determine whether a solid waste exhibits a characteristic of hazardous waste. However, the tests do not, by themselves, provide definitive results. Persons testing their waste shall get a representative sample of the waste for the testing, as defined at Section R315-260-10.

(2) If available knowledge is inadequate to make an accurate determination, the person shall test the waste according to the applicable methods set forth in Sections R315-261-20 through R315-261-24 or according to an equivalent method approved by the director under Section R315-260-21 and in accordance with the following:

(i) Persons testing their waste shall get a representative sample of the waste for the testing, as defined at Section R315-260-10.

(ii) If a test method is specified in Sections R315-261-20 through R315-261-24, the results of the regulatory test, if properly performed, are definitive for determining the regulatory status of the waste.

(e) If the waste is determined to be hazardous, the generator shall refer to Rules R315-261, R315-264, R315-265, R315-266, R315-268, and R315-273 for other possible exclusions or restrictions pertaining to management of the specific waste.

(f) Recordkeeping for small and large quantity generators. A small or large quantity generator shall maintain records supporting its hazardous waste determinations, including records that identify whether a solid waste is a hazardous waste, as defined by Section R315-261-3. Records shall be maintained for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal. These records shall comprise the generator's knowledge of the waste and support the generator's determination, as described at Subsections R315-262-11(c) and R315-262-11(d). The records shall include the following types of information:

(1) the results of any tests, sampling, waste analyses, or other determinations made in accordance with Section R315-262-11;

(2) records documenting the tests, sampling, and analytical methods used to demonstrate the validity and relevance of the tests;

(3) records consulted to determine the process that generated the waste, the composition of the waste, and the properties of the waste; and

(4) records that explain the knowledge basis for the generator's determination, as described at Subsection R315-262-11(d)(1). The periods of record retention referred to in Subsection R315-262-11(f) are extended automatically during any unresolved enforcement action regarding the regulated activity or as requested by the director.

(g) Identifying hazardous waste numbers for small and large quantity generators. If the waste is determined to be hazardous, small quantity generators and large quantity generators shall identify any applicable EPA hazardous waste numbers, EPA hazardous waste codes, in Sections R315-261-20 through R315-261-24 and R315-261-30 through R315-261-35. Before shipping the waste off site, the generator also shall mark its containers with any applicable EPA hazardous waste numbers, EPA hazardous waste codes, according to Section R315-262-32.

R315-262-13. General -- Generator Category Determination.

A generator shall determine its generator category. A generator's category is based on the amount of hazardous waste generated each month and may change from month to month. This section sets forth procedures to determine whether a generator is a very small quantity generator, a small quantity generator, or a large quantity generator for a particular month, as defined in Section R315-260-10.

(a) Generators of either acute hazardous waste or non-acute hazardous waste. A generator who either generates acute hazardous waste or non-acute hazardous waste in a calendar month shall determine its generator category for that month by doing the following:

(1) counting the total amount of hazardous waste generated in the calendar month;

(2) subtracting from the total any amounts of waste exempt from counting as described in Subsections R315-262-13(c) and R315-262-13(d); and

(3) determining the resulting generator category for the hazardous waste generated using Table 1 below.

(b) Generators of both acute and non-acute hazardous wastes. A generator who generates both acute hazardous waste and non-acute hazardous waste in a calendar month shall determine its generator category for that month by doing the following:

(1) counting separately the total amount of acute hazardous waste and the total amount of non-acute hazardous waste generated in the calendar month;

(2) subtracting from each total any amounts of waste exempt from counting as described in Subsections R315-262-13(c) and (d);

(3) determining separately the resulting generator categories for the quantities of acute and non-acute hazardous waste generated using Table 1 below; and

(4) comparing the resulting generator categories from Subsection R315-262-13(b)(3) and applying the more stringent generator category to the accumulation and management of both non-acute hazardous waste and acute hazardous waste generated for that month.

TABLE 1 to Section R315-262-13

Generator Categories Based on

Quantity of Waste Generated in a Calendar Month

Quantity of acute hazardous waste generated in a calendar month	Quantity of non-acute hazardous waste generated in a calendar month	Quantity of residues from a cleanup of acute hazardous waste generated in a calendar month	Generator category
>1kg	Any amount	Any amount	Large quantity generator
Any amount	> or = 1,000kg	Any amount	Large quantity generator
Any amount	Any Amount	>100kg	Large quantity generator
< or = 1 kg	>100 kg and < 1,000 kg	< or = 100 kg	Small quantity Generator
< or = 1 kg	< or = 100 kg	< or = 100 kg	Very small quantity generator

(c) When making the monthly quantity-based determinations required by Rule R315-262, the generator shall include each hazardous waste that it generates, except hazardous waste that:

(1) is exempt from regulation under Subsections R315-261-4(c) through R315-261-4(f), R315-261-6(a)(3), R315-261-7(a)(1), or Section R315-261-8;

(2) is managed immediately upon generation only in on-site elementary neutralization units, wastewater treatment units, or totally enclosed treatment facilities as defined in Section R315-260-10;

(3) is recycled, without prior storage or accumulation, only in an on-site process subject to regulation under Subsection R315-261-6(c)(2);

(4) is used oil managed under the requirements of Subsection R315-261-6(a)(4) and Section R315-15;

(5) is spent lead-acid batteries managed under the requirements of Section R315-266-80;

(6) is universal waste managed under Section R315-261-9 and Rule R315-273;

(7) is a hazardous waste that is an unused commercial chemical product, listed in Sections R315-261-30 through R315-261-35 or exhibiting one or more characteristics in Sections R315-261-20 through R315-261-24, that is generated solely as a result of a laboratory clean-out conducted at an eligible academic entity pursuant to Section R315-262-213. For purposes of Subsection R315-262-13(c)(7), the term eligible academic entity shall have the meaning as defined in Section R315-262-200;

(8) is managed as part of an episodic event in compliance with the conditions of Sections R315-262-230 through R315-262-233; or

(9) is a hazardous waste pharmaceutical, as defined in Section R315-266-500, that is subject to or managed in accordance with Sections R315-266-500 through R315-266-510 or is a hazardous waste pharmaceutical that is also a Drug Enforcement Administration controlled substance and is conditionally exempt under Section R315-266-506.

(d) In determining the quantity of hazardous waste generated in a calendar month, a generator need not include:

(1) hazardous waste if it is removed from on-site accumulation, so long as the hazardous waste was previously counted once;

(2) hazardous waste generated by on-site treatment, including reclamation, of the generator's hazardous waste, so long as the hazardous waste that is treated was previously counted once; and

(3) hazardous waste spent materials that are generated, reclaimed, and subsequently reused on site, so long as such spent materials have been previously counted once.

(e) Based on the generator category as determined under Section R315-262-13, the generator shall meet the applicable independent requirements listed in Section R315-262-10. A generator's category also determines which of the provisions of Sections R315-262-14, R315-262-15, R315-262-16 or R315-262-17 shall be met to obtain an exemption from the storage facility permit, interim status, and operating requirements when accumulating hazardous waste.

(f) Mixing hazardous wastes with solid wastes.

(1) Very small quantity generator wastes.

(i) Hazardous wastes generated by a very small quantity generator may be mixed with solid wastes. Very small quantity generators may mix its hazardous waste with solid waste and remain subject to Section R315-262-14 even though the resultant mixture exceeds the quantity limits identified in the definition of very small quantity generator at Section R315-260-10, unless the mixture exhibits one or more of the characteristics of hazardous waste identified in Sections R315-261-20 through R315-261-24.

(ii) If the resulting mixture exhibits a characteristic of hazardous waste, this resultant mixture is a newly-generated hazardous waste. The very small quantity generator shall count both the resultant mixture amount plus the other hazardous waste generated in the calendar month to determine whether the total quantity exceeds the very small quantity generator calendar month quantity limits identified in the definition of generator categories found in Section R315-260-10. If so, to remain exempt from the permitting, interim status, and operating standards, the very small quantity generator shall meet the conditions for exemption applicable to either a small quantity generator or a large quantity generator. The very small quantity generator shall also comply with the applicable independent requirements for either a small quantity generator or a large quantity generator.

(iii) If a very small quantity generator's wastes are mixed with used oil, the mixture is subject to Rule R315-15. Any material produced from such a mixture by processing, blending, or other treatment is also regulated under Rule R315-15.

(2) Small quantity generator and large quantity generator wastes.

(i) Hazardous wastes generated by a small quantity generator or large quantity generator may be mixed with solid waste. These mixtures are subject to the following: the mixture rule in Subsections R315-261-3(a)(2)(iv), R315-261-3(b)(2) and R315-261-3(b)(3), and R315-261-3(g)(2)(i); the prohibition of dilution rule at Subsection R315-268-3(a); the land disposal restriction requirements of Section R315-268-40 if a characteristic hazardous waste is mixed with a solid waste so that it no longer exhibits the hazardous characteristic; and the hazardous waste determination requirement at Section R315-262-11.

(ii) If the resulting mixture is found to be a hazardous waste, this resultant mixture is a newly-generated hazardous waste. A small quantity generator shall count both the resultant mixture amount plus the other hazardous waste generated in the calendar month to determine whether the total quantity exceeds the small quantity generator calendar monthly quantity limits identified in the definition of generator categories found in Section R315-260-10. If so, to remain exempt from the permitting, interim status, and operating standards, the small quantity generator shall meet the conditions for exemption applicable to a large quantity generator. The small quantity generator shall also comply with the applicable independent requirements for a large quantity generator.

R315-262-14. General -- Conditions For Exemption for a Very Small Quantity Generator.

(a) If the very small quantity generator meets the conditions for exemption listed in Section R315-262-14, hazardous waste generated by the very small quantity generator is not subject to the requirements of Rules R315-124, R315-262 through R315-268, except Sections R315-262-10 through R315-262-14, and Rule R315-270, and the notification requirements of Section 3010 of RCRA and the very small quantity generator may accumulate hazardous waste on site without complying with the requirements. The conditions for exemption are as follows:

(1) In a calendar month the very small quantity generator generates less than or equal to the amounts specified in the definition of "very small quantity generator" in Section R315-260-10;

(2) The very small quantity generator complies with Subsections R315-262-11(a) through R315-262-11(d);

(3) If the very small quantity generator accumulates at any time greater than 1 kilogram, 2.2 lbs, of acute hazardous waste or 100 kilograms, 220 lbs, of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e), the quantities of that acute hazardous waste are subject to the following additional conditions for exemption and independent requirements:

(i) the waste is held on site for no more than 90 days beginning on the date when the accumulated wastes exceed the amounts provided in Subsection R315-262-14(a)(3);

(ii) the conditions for exemption in Subsections R315-262-17(a) through R315-262-17(g);

(iii) notification as a "very small quantity generator" under Subsections R315-262-18(a) through R315-262-18(c);

(iv) preparation and use of the manifest in Sections R315-262-20 through R315-262-27;

(v) pre-transport requirements in Sections R315-262-30 through R315-262-35;

(vi) recordkeeping and reporting requirements of Sections R315-262-40 through R315-262-44; and

(vii) requirements for transboundary movements of hazardous wastes in Sections R315-262-80 through R315-262-89;

(4) If the very small quantity generator accumulates at any time 1,000 kilograms, 2,200 lbs, or greater of non-acute hazardous waste, the quantities of that hazardous waste are subject to the following additional conditions for exemption and independent requirements:

(i) the waste is held on site for no more than 180 days, or 270 days, if applicable, beginning on the date when the accumulated waste exceeds the amounts provided in Subsection R315-262-14(a)(4);

(ii) the quantity of waste accumulated on site never exceeds 6,000 kilograms, 13,200 lbs;

(iii) the conditions for exemption in Subsections R315-262-16(b)(2) through R315-262-16(f);

(iv) notification as a "very small quantity generator" under Subsections R315-262-18(a) through R315-262-18(c);

(v) preparation and use of the manifest in Sections R315-262-20 through R315-262-27;

(vi) pre-transport requirements in Sections R315-262-30 through R315-262-35;

(vii) recordkeeping and reporting requirements of Sections R315-262-40 through R315-262-44; and

(viii) requirements for transboundary movements of hazardous wastes in Sections R315-262-80 through R315-262-89; and

(5) A very small quantity generator that accumulates hazardous waste in amounts less than or equal to the limits in Subsections R315-262-14(a)(3) and R315-262-14(a)(4) shall either treat or dispose of its hazardous waste in an on-site facility or ensure delivery to an off-site treatment, storage, or disposal facility, either of which, if located in the U.S., is:

(i) permitted under Rule R315-270;

(ii) in interim status under Rules R315-265 and R315-270;

(iii) authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 CFR 271;

(iv) permitted, licensed, or registered by a state to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to Rules R315-301 through R315-322;

(v) permitted, licensed, or registered by a state to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit, is subject to the requirements in Rules R315-301 through R315-322 or 40 CFR 257.5 through 257.30;

(vi) a facility that:

(A) beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

(B) treats its waste before beneficial use or reuse, or legitimate recycling or reclamation;

(vii) for universal waste managed under Rule R315-273, a universal waste handler or destination facility subject to the

requirements of Rule R315-273;

(viii) a large quantity generator under the control of the person who controls the very small quantity generator, provided the following conditions are met:

(A) The person, as defined in Section R315-260-10, who controls the very small quantity generator also controls the large quantity generator. "Control," for the purposes of Subsection R315-262-14(a)(5)(viii), means the power to direct the policies of the generator, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate generator facilities on behalf of a different person as defined in Section R315-260-10 may not be considered to "control" the generators.

(B) The very small quantity generator marks its containers of hazardous waste with:

(1) the words "Hazardous Waste"; and

(2) an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704;

(ix) a reverse distributor, as defined in Section R315-266-500, if the hazardous waste pharmaceutical is a potentially creditable hazardous waste pharmaceutical generated by a healthcare facility, as defined in Section R315-266-500; or

(x) a healthcare facility, as defined in Section R315-266-500, that meets the conditions in Subsections R315-266-502(l) and R315-266-503(b), as applicable, to accept non-creditable hazardous waste pharmaceuticals and potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator.

(xi) For airbag waste, an airbag waste collection facility or a designated facility subject to the requirements of Subsection R315-261-4(j).

(b) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids, whether or not sorbents have been added, in any landfill is prohibited.

(c) A very small quantity generator experiencing an episodic event may generate and accumulate hazardous waste in accordance with Sections R315-262-230 through R315-262-233 in lieu of Sections R315-262-15, R315-262-16, and R315-262-17.

R315-262-15. General -- Satellite Accumulation Area Regulations for Small and Large Quantity Generators.

(a) A generator may accumulate as much as 55 gallons of non-acute hazardous waste and/or either one quart of liquid acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) or 1 kg (2.2 lbs) of solid acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) in containers at or near any point of generation where wastes initially accumulate which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with the requirements of Rules R315-124, R315-264 through R315-266, and R315-270, provided that all of the conditions for exemption in Section R315-262-15 are met. A generator may comply with the conditions for exemption in Section R315-262-15 instead of complying with the conditions for exemption in Subsection R315-262-16(b) or 17(a), except as required in Subsections R315-262-15(a)(7) and (8). The conditions for exemption for satellite accumulation are:

(1) If a container holding hazardous waste is not in good condition, or if it begins to leak, the generator shall immediately transfer the hazardous waste from this container to a container that is in good condition and does not leak, or immediately transfer and manage the waste in a central accumulation area operated in compliance with Subsections R315-262-16(b) or 17(a).

(2) The generator shall use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be accumulated, so that the ability of the container to contain the waste is not impaired.

(3) Special standards for incompatible wastes.

(i) Incompatible wastes, or incompatible wastes and materials, (see appendix V of 40 CFR 265 for examples) shall not be placed in the same container, unless 40 CFR 265.17(b), which is incorporated by reference in Section R315-265-1, is complied with.

(ii) Hazardous waste shall not be placed in an unwashed container that previously held an incompatible waste or material (see appendix V of 40 CFR 265 for examples), unless 40 CFR 265.17(b), which is incorporated by reference in Section R315-265-1, is complied with.

(iii) A container holding a hazardous waste that is incompatible with any waste or other materials accumulated nearby in other containers shall be separated from the other materials or protected from them by any practical means.

(4) A container holding hazardous waste shall be closed at all times during accumulation, except:

(i) When adding, removing, or consolidating waste; or

(ii) When temporary venting of a container is necessary:

(A) For the proper operation of equipment, or

(B) To prevent dangerous situations, such as build-up of extreme pressure.

(5) A generator shall mark or label its container with the following:

(i) The words ``Hazardous Waste'' and

(ii) An indication of the hazards of the contents, examples include, but are not limited to:

(A) the applicable hazardous waste characteristic(s), i.e., ignitable, corrosive, reactive, toxic;

(B) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(C) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard

Communication Standard at 29 CFR 1910.1200; or

(D) a chemical hazard label consistent with the National Fire Protection Association code 704.

(6) A generator who accumulates either acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e) or non-acute hazardous waste in excess of the amounts listed in Subsection R315-262-15(a) at or near any point of generation shall do the following:

(i) Comply within three consecutive calendar days with the applicable central accumulation area regulations in Subsection R315-262-16(b) or 17(a), or

(ii) Remove the excess from the satellite accumulation area within three consecutive calendar days to either:

(A) A central accumulation area operated in accordance with the applicable regulations in Subsection R315-262-16(b) or 17(a);

(B) An on-site interim status or permitted treatment, storage, or disposal facility, or

(C) An off-site designated facility; and

(iii) During the three-consecutive-calendar-day period the generator shall continue to comply with Subsections R315-262-15(a)(1) through (5). The generator shall mark or label the container(s) holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

(7) All satellite accumulation areas operated by a small quantity generator shall meet the preparedness and prevention regulations of Subsection R315-262-16(b)(8) and emergency procedures at Subsection R315-262-16(b)(9).

(8) All satellite accumulation areas operated by a large quantity generator shall meet the Preparedness, Prevention and Emergency Procedures in Sections R315-262-250 through R315-262-265.

(b) Reserved.

R315-262-16. General -- Conditions for Exemption for a Small Quantity Generator that Accumulates Hazardous Waste.

A small quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of Rules R315-124, R315-264 through R315-266, and R315-270, or the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if the conditions for exemption listed in Section R315-262-16 are met.

(a) Generation. The generator generates in a calendar month no more than the amounts specified in the definition of "small quantity generator" in Section R315-260-10.

(b) Accumulation. The generator accumulates hazardous waste on site for no more than 180 days, unless in compliance with the conditions for exemption for longer accumulation in Subsections R315-262-16(c), R315-262-16(d) and R315-262-16(e). The following accumulation conditions also apply:

(1) Accumulation limit. The quantity of hazardous waste accumulated on site never exceeds 6,000 kilograms, 13,200 pounds.

(2) Accumulation of hazardous waste in containers.

(i) Condition of containers. If a container holding hazardous waste is not in good condition, or if it begins to leak, the small quantity generator shall immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in another way that complies with the conditions for exemption of Section R315-262-16.

(ii) Compatibility of waste with container. The small quantity generator shall use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be accumulated, so that the ability of the container to contain the waste is not impaired.

(iii) Management of containers.

(A) A container holding hazardous waste shall always be closed during accumulation, except when it is necessary to add or remove waste.

(B) A container holding hazardous waste may not be opened, handled, or accumulated in a manner that may rupture the container or cause it to leak.

(iv) Inspections. At least weekly, the small quantity generator shall inspect central accumulation areas. The small quantity generator shall look for leaking containers and for deterioration of containers caused by corrosion or other factors. See Subsection R315-262-16(b)(2)(i) for remedial action required if deterioration or leaks are detected.

(v) Special conditions for accumulation of incompatible wastes.

(A) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, may not be placed in a container together, unless Subsection R315-265-17(b) is complied with.

(B) Hazardous waste may not be placed in an unwashed container that previously held an incompatible waste or material, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, unless Subsection R315-265-17(b) is complied with.

(C) A container accumulating hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by a dike, berm, wall, or other device.

(3) Accumulation of hazardous waste in tanks.

(i) Reserved.

(ii) A small quantity generator of hazardous waste shall comply with the following general operating conditions:

(A) Treatment or accumulation of hazardous waste in tanks shall comply with Subsection R315-265-17(b).

(B) Hazardous wastes or treatment reagents may not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(C) Uncovered tanks shall be operated to ensure at least 60 centimeters, 2 feet, of freeboard, unless the tank is equipped with a containment structure, for example, a dike or trench, a drainage control system, or a diversion structure, for example a standby tank with a capacity that equals or exceeds the volume of the top 60 centimeters, 2 feet, of the tank.

(D) If hazardous waste is continuously fed into a tank, the tank shall be equipped with a means to stop this inflow, for example a, waste feed cutoff system or by-pass system to a stand-by tank.

(iii) Except as noted in Subsection R315-262-16(b)(3)(iv), a small quantity generator that accumulates hazardous waste in tanks shall inspect, if present:

(A) discharge control equipment, for example waste feed cutoff systems, by-pass systems, and drainage systems at least once each operating day, to ensure that it is in good working order;

(B) data gathered from monitoring equipment, for example pressure and temperature gauges, at least once each operating day to ensure that the tank is being operated according to its design;

(C) the level of waste in the tank at least once each operating day to ensure compliance with Subsection R315-262-16(b)(3)(ii)(C);

(D) the construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams; and

(E) the construction materials of, and the area immediately surrounding, discharge confinement structures, for example, dikes, at least weekly to detect erosion or obvious signs of leakage, for example, wet spots or dead vegetation. The generator shall remedy any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule that ensures that the problem does not lead to an environmental or human health hazard. If a hazard is imminent or has already occurred, remedial action shall be taken immediately.

(iv) A small quantity generator accumulating hazardous waste in tanks or tank systems that have full secondary containment and that either use leak detection equipment to alert personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, shall inspect at least weekly, if applicable, the areas identified in Subsections R315-262-16(b)(3)(iii)(A) through R315-262-16(b)(3)(iii)(E). Use of the alternate inspection schedule shall be documented in the generator's operating record. This documentation shall include a description of the established workplace practices at the generator.

(v) Reserved.

(vi) A small quantity generator accumulating hazardous waste in tanks shall, upon closure of the facility, remove any hazardous waste from tanks, discharge control equipment, and discharge confinement structures. At closure, as throughout the operating period, unless the small quantity generator can demonstrate, in accordance with Subsection R315-261-3(c) or R315-261-3(d), that any solid waste removed from its tank is not a hazardous waste, then it shall manage the waste in accordance with the applicable requirements of Rules R315-262, R315-263, R315-265, and R315-268.

(vii) A small quantity generator shall comply with the following special conditions for accumulation of ignitable or reactive waste:

(A) Ignitable or reactive waste may not be placed in a tank, unless:

(I) the waste is treated, rendered, or mixed before or immediately after placement in a tank so that the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Section R315-261-21 or R315-261-23 and Subsection R315-265-17(b) is complied with; or

(II) the waste is accumulated or treated in a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(III) the tank is used solely for emergencies.

(B) A small quantity generator that treats or accumulates ignitable or reactive waste in covered tanks shall comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," 1977 or 1981, incorporated by reference, see Section R315-260-11.

(C) A small quantity generator shall comply with the following special conditions for incompatible wastes:

(I) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, may not be placed in a tank together, unless Subsection R315-265-17(b) is complied with.

(II) Hazardous waste may not be placed in an unwashed tank that previously held an incompatible waste or material, unless Subsection R315-265-17(b) is complied with.

(4) Accumulation of hazardous waste on drip pads. If the waste is placed on drip pads, the small quantity generator shall comply with the following:

(i) Sections R315-265-440 through R315-265-445, except Subsection R315-265-445(c);

(ii) The small quantity generator shall remove any wastes from the drip pad at least once each 90 days. Any hazardous wastes that are removed from the drip pad at least once each 90 days are then subject to the 180-day accumulation limit in Subsection R315-262-16(b) and Section R315-262-15 if hazardous wastes are being managed in satellite accumulation areas before being moved to the central accumulation area; and

(iii) The small quantity generator shall maintain on site at the facility the following records readily available for inspection:

(A) A written description of procedures that are followed to ensure that any wastes are removed from the drip pad and associated collection system at least once each 90 days; and

(B) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal.

(5) Accumulation of hazardous waste in containment buildings. If the waste is placed in containment buildings, the small quantity generator shall comply with Sections R315-265-1100 through R315-265-1102. The generator shall label its containment buildings with the words "Hazardous Waste" in a conspicuous place easily visible to employees, visitors, emergency responders,

waste handlers, or other persons on site and also in a conspicuous place provide an indication of the hazards of the contents, examples include the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic; hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding; a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704. The generator shall also maintain:

(i) the professional engineer certification that the building complies with the design standards specified in Section R315-265-1101. This certification shall be in the generator's files before operation of the unit; and

(ii) the following records by use of inventory logs, monitoring equipment, or any other effective means:

(A) A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that the generator is consistent with maintaining the 90-day limit, and documentation that the procedures are complied with; or

(B) Documentation that the unit is emptied at least once each 90 days.

(C) Inventory logs or records with the information required by Subsections R315-262-16(b)(5)(ii)(A) and R315-262-16(b)(95)(ii)(B) shall be maintained on site and readily available for inspection.

(6) Labeling and marking of containers and tanks.

(i) Containers. A small quantity generator shall mark or label its containers with the following:

(A) The words "Hazardous Waste";

(B) An indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704; and

(C) The date when each period of accumulation begins clearly visible for inspection on each container.

(ii) Tanks. A small quantity generator accumulating hazardous waste in tanks shall do the following:

(A) Mark or label its tanks with the words "Hazardous Waste";

(B) Mark or label its tanks with an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704;

(C) Use inventory logs, monitoring equipment, or other records to demonstrate that hazardous waste has been emptied within 180 days of first entering the tank if using a batch process, or in the case of a tank with a continuous flow process, demonstrate that estimated volumes of hazardous waste entering the tank daily exit the tank within 180 days of first entering; and

(D) Keep inventory logs or records with the information required by Subsection R315-262-16(b)(6)(ii)(C) on site and readily available for inspection.

(7) Land disposal restrictions. A small quantity generator shall comply with the applicable requirements under Rule R315-268.

(8) Preparedness and prevention.

(i) Maintenance and operation of facility. A small quantity generator shall maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

(ii) Required equipment. Any areas where hazardous waste is either generated or accumulated shall be equipped with the items in Subsections R315-262-16(b)(8)(ii)(A) through R315-262-16(b)(8)(ii)(D), unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified in Subsections R315-262-16(b)(8)(ii)(A) through R315-262-16(b)(8)(ii)(D) or the actual waste generation or accumulation area does not lend itself for safety reasons to have a particular kind of equipment specified in Subsections R315-262-16(b)(8)(ii)(A) through R315-262-16(b)(8)(ii)(D). A small quantity generator may determine the most appropriate locations to locate equipment necessary to prepare for and respond to emergencies.

(A) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility personnel;

(B) A device, such as a telephone, immediately available at the scene of operations, or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

(C) Portable fire extinguishers, fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals, spill control equipment, and decontamination equipment; and

(D) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(iii) Testing and maintenance of equipment. Communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, if required, shall be tested and maintained as necessary to assure its proper operation in

time of emergency.

(iv) Access to communications or alarm system.

(A) When hazardous waste is being poured, mixed, spread, or otherwise handled, any personnel involved in the operation shall have immediate access, for example, direct or unimpeded access, to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under Subsection R315-262-16(b)(8)(ii).

(B) In the event there is just one employee on the premises while the facility is operating, the employee shall have immediate access, for example, direct or unimpeded access, to a device, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under Subsection R315-262-16(b)(8)(ii).

(v) Required aisle space. The small quantity generator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(vi) Arrangements with local authorities.

(A) The small quantity generator shall try to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the Local Emergency Planning Committee, if it is determined to be the appropriate organization for the arrangements.

(I) A small quantity generator trying to make arrangements with its local fire department shall determine the potential need for the services of the local police department, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals.

(II) As part of this coordination, the small quantity generator shall try to make arrangements, as necessary, to familiarize the organizations listed in Subsection R315-262-16(b)(8)(vi)(A) with the layout of the facility, the properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes as well as the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

(III) If more than one police or fire department might respond to an emergency, the small quantity generator shall try to make arrangements designating primary emergency authority to a specific fire or police department, and arrangements with any others to provide support to the primary emergency authority.

(B) A small quantity generator shall maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency. This documentation shall include documentation in the operating record that either confirms the arrangements actively exist or, if no arrangements exist, confirms that the small quantity generator tried to make the arrangements.

(C) A facility that has 24-hour response capabilities may seek a waiver from the authority having jurisdiction (AHJ) over the fire code within the facility's state or locality as far as needing to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, if the waiver is documented in the operating record.

(9) Emergency procedures. The small quantity generator complies with the following conditions for those areas of the generator facility where hazardous waste is generated and accumulated:

(i) There shall always be at least one employee either on the premises or on call, that is, available to respond to an emergency by reaching the facility within a short period, with the responsibility for coordinating any emergency response measures specified in Subsection R315-262-16(b)(9)(iv). This employee is the emergency coordinator.

(ii) The small quantity generator shall post the following information next to telephones or in areas directly involved in the generation and accumulation of hazardous waste:

(A) The name and emergency telephone number of the emergency coordinator;

(B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and

(C) The telephone number of the fire department, unless the facility has a direct alarm.

(iii) The small quantity generator shall ensure that employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(iv) The emergency coordinator or the emergency coordinator's designee shall respond to any emergencies that arise. The applicable responses are as follows:

(A) In the event of a fire, call the fire department or try to extinguish it using a fire extinguisher;

(B) In the event of a spill, the small quantity generator is responsible for containing the flow of hazardous waste to the extent possible, and as soon as is practicable, cleaning up the hazardous waste and any contaminated materials or soil. The containment and cleanup can be conducted either by the small quantity generator or by a contractor on behalf of the small quantity generator;

(C) In the event of a fire, explosion, or other release that could threaten human health outside the facility or when the small quantity generator has knowledge that a spill has reached surface water, the small quantity generator shall immediately notify the National Response Center, using their 24-hour toll free number 800-424-8802 and the state environmental incident reporting program at 801-536-0200 or after hours at 801-536-4123. The report shall include the following information:

(I) The name, address, and U.S. EPA identification number of the small quantity generator;

(II) Date, time, and type of incident, for example, spill or fire;

(III) Quantity and type of hazardous waste involved in the incident;

(IV) Extent of injuries, if any; and

(V) Estimated quantity and disposition of recovered materials, if any.

(c) Transporting over 200 miles. A small quantity generator who shall transport its waste, or offer its waste for transportation, over a distance of 200 miles or more for off-site treatment, storage or disposal may accumulate hazardous waste on site for 270 days or less without a permit or without having interim status if the generator complies with the conditions of Subsection R315-262-16(b).

(d) Accumulation time limit extension. A small quantity generator who accumulates hazardous waste for more than 180 days, or for more than 270 days if it shall transport its waste, or offer its waste for transportation, over a distance of 200 miles or more, is subject to the requirements of Rules R315-264, R315-265, R315-268, and R315-270 unless it has been granted an extension to the 180-day, or 270-day if applicable, period. The extension may be granted by the director if hazardous wastes shall remain on site for longer than 180 days, or 270 days if applicable, due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the director on a case-by-case basis.

(e) Rejected load. A small quantity generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy requirements of Section R315-264-72 or R315-265-72 may accumulate the returned waste on site in accordance with Subsections R315-262-16(a) through R315-262-16(d). Upon receipt of the returned shipment, the generator shall:

(1) sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest; or

(2) sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

(f) A small quantity generator experiencing an episodic event may accumulate hazardous waste in accordance with Sections R315-262-230 through R315-262-233 in lieu of Section R315-262-17.

R315-262-17. General -- Conditions for Exemption for a Large Quantity Generator that Accumulates Hazardous Waste.

A large quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of Rules R315-124, R315-264 through R315-266, and R315-270, or the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if each of the following conditions for exemption are met:

(a) Accumulation. A large quantity generator accumulates hazardous waste on site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in Subsections R315-262-17(b) through R315-262-17(e). The following accumulation conditions also apply:

(1) Accumulation of hazardous waste in containers. If the hazardous waste is placed in containers, the large quantity generator shall comply with the following:

(i) Air emission standards. The applicable requirements of Sections R315-265-1030 through R315-265-1035, R315-265-1050 through R315-265-1064, and R315-265-1080 through R315-265-1090;

(ii) Condition of containers. If a container holding hazardous waste is not in good condition, or if it begins to leak, the large quantity generator shall immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in another way that complies with the conditions for exemption of Section R315-262-17;

(iii) Compatibility of waste with container. The large quantity generator shall use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired;

(iv) Management of containers.

(A) A container holding hazardous waste shall always be closed during accumulation, except when it is necessary to add or remove waste.

(B) A container holding hazardous waste may not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.

(v) Inspections. At least weekly, the large quantity generator shall inspect central accumulation areas. The large quantity generator shall look for leaking containers and for deterioration of containers caused by corrosion or other factors. See Subsection R315-262-17(a)(1)(ii) for remedial action required if deterioration or leaks are detected.

(vi) Special conditions for accumulation of ignitable and reactive wastes.

(A) Containers holding ignitable or reactive waste shall be located at least 15 meters, 50 feet, from the facility's property line unless a written approval is received from the authority having jurisdiction over the local fire code allowing hazardous waste accumulation to occur within this restricted area. A record of the written approval shall be maintained as long as ignitable or reactive hazardous waste is accumulated in this area.

(B) The large quantity generator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste shall be separated and protected from sources of ignition or reaction including but not limited to the following: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks that are static, electrical, or mechanical, spontaneous ignition, for example, from heat-producing chemical reactions, and radiant heat. While ignitable or reactive waste is being handled, the large quantity generator shall confine smoking and open flame to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(vii) Special conditions for accumulation of incompatible wastes.

(A) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, may not be placed in a container together, unless Subsection R315-265-17(b) is complied with.

(B) Hazardous waste may not be placed in an unwashed container that previously held an incompatible waste or material, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, unless Subsection R315-265-17(b) is complied with.

(C) A container holding a hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by a dike, berm, wall, or other device.

(2) Accumulation of hazardous waste in tanks. If the waste is placed in tanks, the large quantity generator shall comply with the applicable requirements of Sections R315-265-190 through R315-265-202, except Subsection R315-265-197(c) and Section R315-265-200, as well as the applicable requirements of Sections R315-265-1030 through R315-265-1035, R315-265-1050 through R315-265-1064, and R315-265-1080 through R315-265-1090.

(3) Accumulation of hazardous waste on drip pads. If the hazardous waste is placed on drip pads, the large quantity generator shall comply with the following:

(i) Sections R315-265-440 through R315-265-445;

(ii) The large quantity generator shall remove wastes from the drip pad at least once each 90 days. Any hazardous wastes that are removed from the drip pad are then subject to the 90-day accumulation limit in Subsection R315-262-17(a) and Section R315-262-15, if the hazardous wastes are being managed in satellite accumulation areas before being moved to a central accumulation area; and

(iii) The large quantity generator shall maintain on site at the facility the following records readily available for inspection:

(A) A written description of procedures that are followed to ensure that wastes are removed from the drip pad and associated collection system at least once each 90 days; and

(B) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal.

(4) Accumulation of hazardous waste in containment buildings. If the waste is placed in containment buildings, the large quantity generator shall comply with Sections R315-265-1100 through R315-265-1102. The generator shall label its containment building with the words "Hazardous Waste" in a conspicuous place easily visible to employees, visitors, emergency responders, waste handlers, or other persons on site, and also in a conspicuous place provide an indication of the hazards of the contents, examples include the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic; hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding; a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704. The generator shall also maintain:

(i) the professional engineer certification that the building complies with the design standards specified in Section R315-265-1101. This certification shall be in the generator's files before operation of the unit; and

(ii) the following records by use of inventory logs, monitoring equipment, or any other effective means:

(A) A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that the generator is consistent with respecting the 90-day limit, and documentation that the procedures are complied with; or

(B) Documentation that the unit is emptied at least once each 90 days.

(C) Inventory logs or records with the information required by Subsections R315-262-17(a)(4)(ii)(A) and R315-262-17(a)(4)(ii)(B) shall be maintained on site and readily available for inspection.

(5) Labeling and marking of containers and tanks.

(i) Containers. A large quantity generator shall mark or label its containers with the following:

(A) The words "Hazardous Waste";

(B) An indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704; and

(C) The date that each period of accumulation begins clearly visible for inspection on each container.

(ii) Tanks. A large quantity generator accumulating hazardous waste in tanks shall do the following:

(A) Mark or label its tanks with the words "Hazardous Waste";

(B) Mark or label its tanks with an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704;

(C) Use inventory logs, monitoring equipment or other records to demonstrate that hazardous waste has been emptied within 90 days of first entering the tank if using a batch process, or in the case of a tank with a continuous flow process, demonstrate that estimated volumes of hazardous waste entering the tank daily exit the tank within 90 days of first entering; and

(D) Keep inventory logs or records with the information required by Subsection R315-262-17(a)(5)(ii)(C) on site and readily available for inspection.

(6) Emergency procedures. The large quantity generator complies with the standards in Sections R315-262-250 through R315-262-265, Preparedness, Prevention and Emergency Procedures for Large Quantity Generators.

(7) Personnel training.

(i)(A) Facility personnel shall successfully finish a program of classroom instruction, online training, for example, computer-based or electronic, or on-the-job training that teaches them to perform their duties in a way that ensures compliance with Rule R315-262. The large quantity generator shall ensure that this program includes the elements described in the document required under Subsection R315-262-17(a)(7)(iv)(C).

(B) This program shall be directed by a person trained in hazardous waste management procedures, and shall include instruction that teaches facility personnel hazardous waste management procedures, including contingency plan implementation, relevant to their employment positions.

(C) At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including if applicable:

(I) procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(II) key parameters for automatic waste feed cutoff systems;

(III) communications or alarm systems;

(IV) response to fires or explosions;

(V) response to ground-water contamination incidents; and

(VI) shutdown of operations.

(D) For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the large quantity generator is not required to provide separate emergency response training pursuant to Section R315-262-17, if the overall facility training meets the conditions of exemption in Section R315-262-17.

(ii) Facility personnel shall successfully finish the program required in Subsection R315-262-17(a)(7)(i) within six months after the date of their employment or assignment to the facility, or to a new position at the facility, whichever is later. Employees may not work in unsupervised positions until they have finished the training standards of Subsection R315-262-17(a)(7)(i).

(iii) Facility personnel shall take part in an annual review of the initial training required in Subsection R315-262-17(a)(7)(i).

(iv) The large quantity generator shall maintain the following documents and records at the facility:

(A) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(B) A written job description for each position listed under Subsection R315-262-17(a)(7)(iv)(A). This description may be consistent in its degree of specificity with descriptions for other similar positions in the company location or bargaining unit, but shall include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;

(C) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under Subsection R315-262-17(a)(7)(iv)(A); and

(D) Records that document that the training or job experience, required under Subsections R315-262-17(a)(7)(i), R315-262-17(a)(7)(ii), and R315-262-17(a)(7)(iii), has been given to, and finished by, facility personnel.

(v) Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the company.

(8) Closure. A large quantity generator accumulating hazardous wastes in containers, tanks, drip pads, and containment buildings, before closing a unit at the facility, or before closing the facility, shall meet the following conditions:

(i) Notification for closure of a waste accumulation unit. A large quantity generator shall perform one of the following when closing a waste accumulation unit:

(A) Place a notice in the operating record within 30 days after closure identifying the location of the unit within the facility; or

(B) Meet the closure performance standards of Subsection R315-262-17(a)(8)(iii) for container, tank, and containment building waste accumulation units or Subsection R315-262-17(a)(8)(iv) for drip pads and notify the director following the procedures in Subsection R315-262-17(a)(8)(ii)(B) for the waste accumulation unit. If the waste accumulation unit is subsequently reopened, the generator may remove the notice from the operating record.

(ii) Notification for closure of the facility.

(A) Notify the director using EPA form 8700-12 no later than 30 days before closing the facility.

(B) Notify the director using EPA form 8700-12 within 90 days after closing the facility that it has complied with the closure performance standards of Subsection R315-262-17(a)(8)(iii) or R315-262-17(a)(8)(iv). If the facility cannot meet the closure performance standards of Subsection R315-262-17(a)(8)(iii) or R315-262-17(a)(8)(iv), notify the director using EPA form 8700-12 that it will close as a landfill under Section R315-265-310, in the case of a container, tank or containment building units, or for a facility with drip pads, notify using EPA form 8700-12 that it will close under the standards of Subsection R315-265-445(b).

(C) A large quantity generator may request additional time to clean close, but it shall notify the director using EPA form 8700-12 within 75 days after the date provided in Subsection R315-262-17(a)(8)(ii)(A) to request an extension and provide an explanation as to why the additional time is required.

(iii) Closure performance standards for container, tank systems, and containment building waste accumulation units.

(A) At closure, the generator shall close the waste accumulation unit or facility in a manner that:

(I) minimizes the need for further maintenance by controlling, minimizing, or eliminating, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and

(II) removes or decontaminates contaminated equipment, structures and soil and any remaining hazardous waste residues from waste accumulation units including containment system components such as pads of liners, contaminated soils and subsoils, bases, and structures and equipment contaminated with waste, unless Subsection R315-261-3(d) applies.

(III) Any hazardous waste generated in the process of closing either the generator's facility or units accumulating hazardous waste shall be managed in accordance with the applicable standards of Rules R315-262, R315-263, R315-265 and R315-268, including removing any hazardous waste contained in these units within 90 days of generating it and managing these wastes in a hazardous waste permitted treatment, storage and disposal facility or interim status facility.

(IV) If the generator demonstrates that any contaminated soils and wastes cannot be practicably removed or decontaminated as required in Subsection R315-262-17(a)(8)(ii)(A)(II), then the waste accumulation unit is considered to be a landfill and the generator shall close the waste accumulation unit and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, Section R315-265-310. In addition, for the purposes of closure, post-closure, and financial responsibility, such a waste accumulation unit is then considered to be a landfill, and the generator shall meet the requirements for landfills specified in Sections R315-265-110 through R315-265-121 and R315-265-140 through R315-265-148.

(iv) Closure performance standards for drip pad waste accumulation units. At closure, the generator shall comply with the closure requirements of Subsections R315-262-17(a)(8)(ii) and R315-262-17(a)(8)(iii)(A)(I) and R315-262-17(a)(8)(iii)(A)(III), and Subsections R315-265-445(a) and R315-265-445(b).

(v) The closure requirements of Subsection R315-262-17(a)(8) do not apply to satellite accumulation areas.

(9) Land disposal restrictions. The large quantity generator complies with the applicable requirements under Rule R315-268.

(b) Accumulation time limit extension. A large quantity generator who accumulates hazardous waste for more than 90 days is subject to the requirements of Rules R315-124, R315-264 through R315-266, R315-268, and R315-270 and the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, unless it has been granted an extension to the 90-day period. The extension may be granted by the director if hazardous wastes shall remain on site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the director on a case-by-case basis.

(c) Accumulation of F006. A large quantity generator who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste number F006, may accumulate F006 waste on site for more than 90 days, but not more than 180 days without being subject to Rules R315-124, R315-264 through R315-266 and R315-270, and the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if it complies with the following additional conditions for exemption:

(1) The large quantity generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants, or contaminants entering F006 or otherwise released to the environment before its recycling;

(2) The F006 waste is legitimately recycled through metals recovery;

(3) No more than 20,000 kilograms of F006 waste is accumulated on site at any one time; and

(4) The F006 waste is managed in accordance with one or a combination of the following:

(i)(A) If the F006 waste is placed in containers, the large quantity generator shall comply with the applicable conditions for exemption in Subsection R315-262-17(a)(1).

(B) If the F006 is placed in tanks, the large quantity generator shall comply with the applicable conditions for exemption of Subsection R315-262-17(a)(2).

(C) If the F006 is placed in containment buildings, the large quantity generator shall comply with Sections R315-265-1100 through R315-265-1102 and has placed its professional engineer certification that the building complies with the design standards specified in Section R315-265-1101 in the facility's files before operation of the unit. The large quantity generator shall maintain the following records:

(I) A written description of procedures to ensure that the F006 waste remains in the unit for no more than 180 days, a written description of the waste generation and management practices for the facility showing that they are consistent with the 180-day limit, and documentation that the large quantity generator is complying with the procedures; or

(II) Documentation that the unit is emptied at least once each 180 days.

(ii) The large quantity generator is exempt from the requirements in Sections R315-265-110 through R315-265-121 and R315-265-140 through R315-265-148 except for those referenced in Subsection R315-262-17(a)(8).

(iii) The date that each period of accumulation begins is clearly marked and shall be clearly visible for inspection on each container;

(iv) While being accumulated on site, each container and tank is labeled or marked clearly with:

(A) the words "Hazardous Waste"; and

(B) an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704.

(v) The large quantity generator complies with the requirements in Subsections R315-262-17(a)(6) and R315-262-17(a)(7).

(d) F006 transported over 200 miles. A large quantity generator who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste number F006, and who must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more for off-site metals recovery, may accumulate F006 waste on site for more than 90 days, but not more than 270 days without being subject to Rules R315-124, R315-264 through R315-266, R315-270, and the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if the large quantity generator complies with the conditions for exemption of Subsections R315-262-17(c)(1) through R315-262-17(c)(4).

(e) F006 accumulation time extension. A large quantity generator accumulating F006 in accordance with Subsections R315-262-17(c) and R315-262-17(d) who accumulates F006 waste on site for more than 180 days, or for more than 270 days if the generator must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more, or who accumulates more than 20,000 kilograms of F006 waste on site is an operator of a storage facility and is subject to the requirements of Rules R315-124, R315-264, R315-265, and R315-270, and the notification requirements of Section 3010 of RCRA, for treatment, storage, and disposal facilities, unless the generator has been granted an extension to the 180-day, or 270-day if applicable, period or an exception to the 20,000 kilogram accumulation limit. These extensions and exceptions may be granted by the director if F006 waste shall remain on site for longer than 180 days, or 270 days if applicable, or if more than 20,000 kilograms of F006 waste shall remain on site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the director on a case-by-case basis.

(f) Consolidation of hazardous waste received from very small quantity generators. Large quantity generators may accumulate on site hazardous waste received from very small quantity generators under control of the person, as defined in Section R315-260-10, who controls the large quantity generator facility without a storage permit or interim status and without complying with the requirements of Rules R315-124, R315-264 through R315-266, R315-268, and R315-270, and the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if they comply with Subsections R315-262-17(f)(1) through R315-262-17(f)(3). "Control," for the purposes of Subsection R315-262-17(f), means the power to direct the policies of the generator, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate generator facilities on behalf of a different person may not be considered to "control" the generators.

(1) The large quantity generator notifies the director at least 30 days before receiving the first shipment from a very small quantity generators using EPA Form 8700-12; and

(i) Identifies on the form the names and site addresses for the very small quantity generators as well as the name and business telephone number for a contact person for the very small quantity generators; and

(ii) Submits an updated Site ID form, EPA Form 8700-12, within 30 days after a change in the name or site address for the very small quantity generator.

(2) The large quantity generator maintains records of shipments for three years from the date the hazardous waste was received from the very small quantity generator. These records shall identify the name, site address, and contact information for the very small quantity generator and include a description of the hazardous waste received, including the quantity and the date the waste was received.

(3) The large quantity generator complies with the independent requirements identified in Subsection R315-262-10(a)(1)(iii) and the conditions for exemption in Subsection R315-262-17(f) for hazardous wastes received from a very small quantity generator. For purposes of the labeling and marking rules in Subsection R315-262-17(a)(5), the large quantity generator shall label the container or unit with the date accumulation started, that is, the date the hazardous waste was received from the very small quantity generator. If the large quantity generator is consolidating incoming hazardous waste from a very small quantity generator with either its own hazardous waste or with hazardous waste from other very small quantity generators, the large quantity generator shall label each container or unit with the earliest date any hazardous waste in the container was accumulated on site.

(g) Rejected load. A large quantity generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy requirements of Section R315-264-72 or R315-265-72 may accumulate the returned waste on site in accordance with Subsections R315-262-17(a) and R315-262-17(b). Upon receipt of the returned shipment, the generator shall:

(1) sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest; or

(2) sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

R315-262-18. General -- EPA Identification Numbers and Re-Notification for Small Quantity Generators and Large Quantity Generators.

(a) A generator shall not treat, store, dispose of, transport, or offer for transportation, hazardous waste without having received an EPA identification number from the Director.

(b) A generator who has not received an EPA identification number shall obtain one by applying to the Director using EPA Form 8700-12. Upon receiving the request the Director will assign an EPA identification number to the generator.

(c) A generator shall not offer its hazardous waste to transporters or to treatment, storage, or disposal facilities that have not received an EPA identification number.

(d) Re-notification.

(1) A small quantity generator shall re-notify the Director starting in 2021 and every four years thereafter using EPA Form 8700-12. This re-notification shall be submitted by September 1st of each year in which re-notifications are required.

(2) A large quantity generator shall re-notify the Director by March 1 of each even-numbered year thereafter using EPA Form 8700-12. A large quantity generator may submit this re-notification as part of its Biennial Report required under Section R315-262-41.

(e) A recognized trader shall not arrange for import or export of hazardous waste without having received an EPA identification number from the Director.

R315-262-20. Manifest Requirements Applicable to Small and Large Quantity Generators -- General Requirements.

(a)(1) A generator who transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, and disposal facility who offers for transport a rejected hazardous waste load, shall prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A.

(2) Reserved.

(3) Electronic manifest. In lieu of using the manifest form specified in Subsection R315-262-20(a)(1), a person required to prepare a manifest under Subsection R315-262-20(a)(1) may prepare and use an electronic manifest, provided that the person:

(i) Complies with the requirements in Section R315-262-24 for use of electronic manifests, and

(ii) Complies with the requirements of 40 CFR 3.10 for the reporting of electronic documents to EPA.

(b) A generator shall designate on the manifest one facility which is permitted to handle the waste described on the manifest.

(c) A generator may also designate on the manifest one alternate facility which is permitted to handle his waste in the event an emergency prevents delivery of the waste to the primary designated facility.

(d) If the transporter is unable to deliver the hazardous waste to the designated facility or the alternate facility, the generator shall either designate another facility or instruct the transporter to return the waste.

(e) The requirements of Section R315-262-20 through 27 do not apply to hazardous waste produced by generators of greater than 100 kg but less than 1000 kg in a calendar month where:

(1) The waste is reclaimed under a contractual agreement pursuant to which:

(i) The type of waste and frequency of shipments are specified in the agreement;

(ii) The vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste; and

(2) The generator maintains a copy of the reclamation agreement in his files for a period of at least three years after termination or expiration of the agreement.

(f) The requirements of Sections R315-262-20 through 27 and Subsection R315-262-32(b) do not apply to the transport of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person, even if such contiguous property is divided by a public or private right-of-way. Notwithstanding Subsection R315-263-10(a), the generator or transporter shall comply with the requirements for transporters set forth in Sections R315-263-30 and 31 in the event of a discharge of hazardous waste on a public or private right-of-way.

R315-262-21. Manifest Requirements Applicable to Small and Large Quantity Generators -- Manifest Tracking Numbers, Manifest Printing, and Obtaining Manifests.

(a)(1) A registrant may not print, or have printed, the manifest for use of distribution unless it has received approval from the EPA Director of the Office of Resource Conservation and Recovery to do so under Subsection R315-262-21(c) and (e).

(2) The approved registrant is responsible for ensuring that the organizations identified in its application are in compliance with the procedures of its approved application and the requirements of Section R315-262-21. The registrant is responsible for assigning manifest tracking numbers to its manifests.

(b) A registrant shall submit an initial application to the EPA Director of the Office of Resource Conservation and Recovery that contains the following information:

(1) Name and mailing address of registrant;

(2) Name, telephone number and email address of contact person;

(3) Brief description of registrant's government or business activity;

(4) EPA identification number of the registrant, if applicable;

(5) Description of the scope of the operations that the registrant plans to undertake in printing, distributing, and using its manifests, including:

(i) A description of the printing operation. The description should include an explanation of whether the registrant intends to print its manifests in-house, i.e., using its own printing establishments, or through a separate, i.e., unaffiliated, printing company. If the registrant intends to use a separate printing company to print the manifest on its behalf, the application shall identify this printing company and discuss how the registrant will oversee the company. If this includes the use of intermediaries, e.g., prime and subcontractor relationships, the role of each shall be discussed. The application shall provide the name and mailing address of each company. It also shall provide the name and telephone number of the contact person at each company.

(ii) A description of how the registrant will ensure that its organization and unaffiliated companies, if any, comply with the requirements of Section R315-262-21. The application shall discuss how the registrant will ensure that a unique manifest tracking number will be pre-printed on each manifest. The application shall describe the internal control procedures to be followed by the registrant and unaffiliated companies to ensure that numbers are tightly controlled and remain unique. In particular, the application shall describe how the registrant will assign manifest tracking numbers to its manifests. If computer systems or other infrastructure will be used to maintain, track, or assign numbers, these should be indicated. The application shall also indicate how the printer will pre-print a unique number on each form, e.g., crash or press numbering. The application also shall explain the other quality

procedures to be followed by each establishment and printing company to ensure that all required print specifications are consistently achieved and that printing violations are identified and corrected at the earliest practicable time.

(iii) An indication of whether the registrant intends to use the manifests for its own business operations or to distribute the manifests to a separate company or to the general public, e.g., for purchase.

(6) A brief description of the qualifications of the company that will print the manifest. The registrant may use readily available information to do so, e.g., corporate brochures, product samples, customer references, documentation of ISO certification, so long as such information pertains to the establishments or company being proposed to print the manifest.

(7) Proposed unique three-letter manifest tracking number suffix. If the registrant is approved to print the manifest, the registrant shall use this suffix to pre-print a unique manifest tracking number on each manifest.

(8) A signed certification by a duly authorized employee of the registrant that the organizations and companies in its application will comply with the procedures of its approved application and the requirements of Section R315-262-21 and that it will notify the EPA Director of the Office of Resource Conservation and Recovery of any duplicated manifest tracking numbers on manifests that have been used or distributed to other parties as soon as this becomes known.

(c) EPA shall review the application submitted under Subsection R315-262-21(b) and either approve it or request additional information or modification before approving it.

(d)(1) Upon EPA approval of the application under Subsection R315-262-21(c), EPA shall provide the registrant an electronic file of the manifest, continuation sheet, and manifest instructions and ask the registrant to submit three fully assembled manifests and continuation sheet samples, except as noted in Subsection R315-262-21(d)(3). The registrant's samples shall meet all of the specifications in Subsection R315-262-21(f) and be printed by the company that will print the manifest as identified in the application approved under Subsection R315-262-21(c).

(2) The registrant shall submit a description of the manifest samples as follows:

(i) Paper type, i.e., manufacturer and grade of the manifest paper;

(ii) Paper weight of each copy;

(iii) Ink color of the manifest's instructions. If screening of the ink was used, the registrant shall indicate the extent of the screening; and

(iv) Method of binding the copies.

(3) The registrant need not submit samples of the continuation sheet if it will print its continuation sheet using the same paper type, paper weight of each copy, ink color of the instructions, and binding method as its manifest form samples.

(e) EPA shall evaluate the forms and either approve the registrant to print them as proposed or request additional information or modification to them before approval. EPA shall notify the registrant of its decision by mail. The registrant cannot use or distribute its forms until EPA approves them. An approved registrant shall print the manifest and continuation sheet according to its application approved under Subsection R315-262-21(c) and the manifest specifications in Subsection R315-262-21(f). It also shall print the forms according to the paper type, paper weight, ink color of the manifest instructions and binding method of its approved forms.

(f) Paper manifests and continuation sheets shall be printed according to the following specifications:

(1) The manifest and continuation sheet shall be printed with the exact format and appearance as EPA Forms 8700-22 and 8700-22A, respectively. However, information required to complete the manifest may be pre-printed on the manifest form.

(2) A unique manifest tracking number assigned in accordance with a numbering system approved by EPA shall be pre-printed in Item 4 of the manifest. The tracking number shall consist of a unique three-letter suffix following nine digits.

(3) The manifest and continuation sheet shall be printed on 81/2 x 11-inch white paper, excluding common stubs, e.g., top- or side-bound stubs. The paper shall be durable enough to withstand normal use.

(4) The manifest and continuation sheet shall be printed in black ink that can be legibly photocopied, scanned, or faxed, except that the marginal words indicating copy distribution shall be printed with a distinct ink color or with another method; e.g., white text against black background in text box, or, black text against grey background in text box; that clearly distinguishes the copy distribution notations from the other text and data entries on the form.

(5) The manifest and continuation sheet shall be printed as five-copy forms. Copy-to-copy registration shall be exact within 1/32nd of an inch. Handwritten and typed impressions on the form shall be legible on all five copies. Copies shall be bound together by one or more common stubs that reasonably ensure that they will not become detached inadvertently during normal use.

(6) Each copy of the manifest and continuation sheet shall indicate how the copy shall be distributed, as follows:

(i) Page 1, top copy: "Designated facility to EPA's e-Manifest system";

(ii) Page 2: "Designated facility to generator";

(iii) Page 3: "Designated facility copy";

(iv) Page 4: "Transporter copy"; and

(v) Page 5, bottom copy: "Generator's initial copy".

(7) The instructions for the manifest form, EPA Form 8700-22, and the manifest continuation sheet, EPA Form 8700-22A, shall be printed in accordance with the content that is currently approved under OMB Control Number 2050-0039 and published to the e-Manifest program's web site. The instructions shall appear legibly on the back of the copies of the manifest and continuation sheet as provided in Subsection R315-262-21(f). The instructions shall not be visible through the front of the copies when photocopied or faxed.

(i) Manifest Form 8700-22.

(A) The "Instructions for Generators" on Copy 5;

(B) The "Instructions for International Shipment Block" and "Instructions for Transporters" on Copy 4; and

(C) The "Instructions for Treatment, Storage, and Disposal Facilities" on Copy 3.

(ii) Manifest Form 8700-22A.

(A) The "Instructions for Generators" on Copy 5;

(B) The "Instructions for Transporters" on Copy 4; and

(C) The "Instructions for Treatment, Storage, and Disposal Facilities" on Copy 3.

(8) The designated facility copy of each manifest and continuation sheet shall include in the bottom margin the following warning in prominent font: "If you received this manifest, you have responsibilities under the e-Manifest Act. See instructions on reverse side."

(g)(1) A generator may use manifests printed by any source so long as the source of the printed form has received approval from EPA to print the manifest under Subsections R315-262-21(c) and (e). A registered source may be a:

(i) State agency;

(ii) Commercial printer;

(iii) Hazardous waste generator, transporter or TSDF; or

(iv) Hazardous waste broker or other preparer who prepares or arranges shipments of hazardous waste for transportation.

(2) A generator shall determine whether the generator state or the consignment state for a shipment regulates any additional wastes, beyond those regulated Federally, as hazardous wastes under these states' authorized programs. Generators also shall determine whether the consignment state or generator state requires the generator to submit any copies of the manifest to these states. In cases where the generator shall supply copies to either the generator's state or the consignment state, the generator is responsible for supplying legible photocopies of the manifest to these states.

(h)(1) If an approved registrant would like to update any of the information provided in its application approved under Subsection R315-262-21(c), e.g., to update a company phone number or name of contact person, the registrant shall revise the application and submit it to the EPA Director of the Office of Resource Conservation and Recovery, along with an indication or explanation of the update, as soon as practicable after the change occurs. The Agency either shall approve or deny the revision. If the Agency denies the revision, it shall explain the reasons for the denial, and it shall contact the registrant and request further modification before approval.

(2) If the registrant would like a new tracking number suffix, the registrant shall submit a proposed suffix to the EPA Director of the Office of Resource Conservation and Recovery, along with the reason for requesting it. The Agency shall either approve the suffix or deny the suffix and provide an explanation why it is not acceptable.

(3) If a registrant would like to change the paper type, paper weight, ink color of the manifest instructions, or binding method of its manifest or continuation sheet subsequent to approval under Subsection R315-262-21(e), then the registrant shall submit three samples of the revised form for EPA review and approval. If the approved registrant would like to use a new printer, the registrant shall submit three manifest samples printed by the new printer, along with a brief description of the printer's qualifications to print the manifest. EPA shall evaluate the manifests and either approve the registrant to print the forms as proposed or request additional information or modification to them before approval. EPA shall notify the registrant of its decision by mail. The registrant cannot use or distribute its revised forms until EPA approves them.

(i) If, subsequent to its approval under Subsection R315-262-21(e), a registrant typesets its manifest or continuation sheet instead of using the electronic file of the forms provided by EPA, it shall submit three samples of the manifest or continuation sheet to the registry for approval. EPA shall evaluate the manifests or continuation sheets and either approve the registrant to print them as proposed or request additional information or modification to them before approval. EPA shall notify the registrant of its decision by mail. The registrant cannot use or distribute its typeset forms until EPA approves them.

(j) EPA may exempt a registrant from the requirement to submit form samples under Subsection R315-262-21(d) or (h)(3) if the Agency is persuaded that a separate review of the registrant's forms would serve little purpose in informing an approval decision; e.g., a registrant certifies that it will print the manifest using the same paper type, paper weight, ink color of the instructions and binding method of the form samples approved for some other registrant. A registrant may request an exemption from EPA by indicating why an exemption is warranted.

(k) An approved registrant shall notify EPA by phone or email as soon as it becomes aware that it has duplicated tracking numbers on any manifests that have been used or distributed to other parties.

(l) If, subsequent to approval of a registrant under Subsection R315-262-21(e), EPA becomes aware that the approved paper type, paper weight, ink color of the instructions, or binding method of the registrant's form is unsatisfactory, EPA shall contact the registrant and require modifications to the form.

(m)(1) EPA may suspend and, if necessary, revoke printing privileges if we find that the registrant:

(i) Has used or distributed forms that deviate from its approved form samples in regard to paper weight, paper type, ink color of the instructions, or binding method; or

(ii) Exhibits a continuing pattern of behavior in using or distributing manifests that contain duplicate manifest tracking numbers.

(2) EPA shall send a warning letter to the registrant that specifies the date by which it shall come into compliance with the requirements. If the registrant does not come in compliance by the specified date, EPA shall send a second letter notifying the registrant that EPA has suspended or revoked its printing privileges. An approved registrant shall provide information on its printing activities to EPA if requested.

R315-262-22. Manifest Requirements Applicable to Small and Large Quantity Generators -- Number of Copies.

The manifest consists of at least the number of copies which will provide the generator, each transporter, and the owner or operator of the designated facility with one copy each for their records and another copy to be returned to the generator.

R315-262-23. Manifest Requirements Applicable to Small and Large Quantity Generators -- Use of the Manifest.

(a) The generator shall:

(1) sign the manifest certification by hand; and

(2) obtain the handwritten signature of the initial transporter and date of acceptance on the manifest; and

(3) retain one copy, in accordance with Subsection R315-262-40(a).

(b) The generator shall give the transporter the remaining copies of the manifest.

(c) For shipments of hazardous waste within Utah solely by water, bulk shipments only, the generator shall send three copies of the manifest dated and signed in accordance with Section R315-262-23 to the owner or operator of the designated facility or the last water, bulk shipment, transporter to handle the waste in the United States if exported by water. Copies of the manifest are not required for each transporter.

(d) For rail shipments of hazardous waste within Utah which originate at the site of generation, the generator shall send at least three copies of the manifest dated and signed in accordance with Section R315-262-23 to:

(1) the next non-rail transporter, if any; or

(2) the designated facility if transported solely by rail; or

(3) the last rail transporter to handle the waste in the United States if exported by rail.

(e) For shipments of hazardous waste to a designated facility in an authorized state which has not yet obtained federal authorization to regulate that particular waste as hazardous, the generator shall assure that the designated facility agrees to sign and return the manifest to the generator, and that any out-of-state transporter signs and forwards the manifest to the designated facility.

Note: See Subsections R315-263-20(e) and R315-263-20(f) for special provisions for rail or water, bulk shipment, transporters.

(f) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are returned to the generator by the designated facility, following the procedures of Subsections R315-264-72(f) or R315-265-72(f), the generator shall:

(1) sign either:

(i) item 20 of the new manifest if a new manifest is used for the returned shipment; or

(ii) item 18c of the original manifest if the original manifest is used for the returned shipment;

(2) provide the transporter a copy of the manifest;

(3) within 30 days of delivery of the rejected shipment or container residues contained in non-empty containers, send a copy of the manifest to the designated facility that returned the shipment to the generator; and

(4) retain at the generator's site a copy of each manifest for at least three years from the date of delivery.

R315-262-24. Manifest Requirements Applicable to Small and Large Quantity Generators -- Use of the Electronic Manifest.

(a) Legal equivalence to paper manifests. Electronic manifests that are gotten, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with Section R315-262-24 in lieu of EPA Forms 8700-22 and 8700-22A are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy any requirement in Title R315 to get, complete, sign, provide, use, or keep a manifest.

(1) Any requirement in Title R315 to sign a manifest or manifest certification by hand, or to get a handwritten signature, is satisfied by signing with or getting a valid and enforceable electronic signature within the meaning of 40 CFR 262.25.

(2) Any requirement in Title R315 to give, provide, send, forward, or return to another person a copy of the manifest is satisfied when an electronic manifest is transmitted to the other person by submission to the system.

(3) Any requirement in Title R315 for a generator to keep or keep a copy of each manifest is satisfied by retention of a signed electronic manifest in the generator's account on the national e-Manifest system, if these copies are readily available for viewing and production if requested by any EPA or Utah inspector.

(4) No generator may be held liable for the inability to produce an electronic manifest for inspection under Section R315-262-24 if the generator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the generator bears no responsibility.

(b) A generator may participate in the electronic manifest system either by accessing the electronic manifest system from its own electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the generator's site by the transporter who accepts the hazardous waste shipment from the generator for off-site transportation.

(c) Restriction on use of electronic manifests. A generator may use an electronic manifest for the tracking of hazardous waste shipments involving any RCRA hazardous waste only if it is known when the manifest is originated that each waste handler named on the manifest participates in the use of the electronic manifest.

(1) Except that a generator may sign by hand and keep a paper copy of the electronic manifest signed by hand by the initial transporter, in lieu of executing the generator copy electronically, thereby enabling the transporter and subsequent waste handlers to execute the rest of the manifest copies electronically.

(d) Requirement for one printed copy. To the extent the Hazardous Materials regulation on shipping papers for carriage by public highway requires shippers of hazardous materials to supply a paper document for compliance with 49 CFR 177.817, a generator originating an electronic manifest shall also provide the initial transporter with one printed copy of the electronic manifest.

(e) Special procedures if electronic manifest is unavailable. If a generator has prepared an electronic manifest for a hazardous waste shipment, but the electronic manifest system becomes unavailable for any reason before the time that the initial transporter has signed electronically to acknowledge the receipt of the hazardous waste from the generator, then the generator shall get

and complete a paper manifest and if necessary, a continuation sheet (EPA Forms 8700-22 and 8700-22A) in accordance with the manifest instructions, and use these paper forms from this point forward in accordance with the requirements of Section R315-262-23.

(f) Special procedures for electronic signature methods undergoing tests. If a generator has prepared an electronic manifest for a hazardous waste shipment, and signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the generator shall also sign with an ink signature the generator or offeror certification on the printed copy of the manifest provided under Subsection R315-262-24(d).

(g) Reserved.

(h) Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person, such as the waste handler, named on the manifest. Generators may participate electronically in the post-receipt data corrections process by following the process described in Subsection R315-264-71(l), which applies to corrections made to either paper or electronic manifest records.

R315-262-25. Manifest Requirements Applicable to Small and Large Quantity Generators -- Electronic Manifest Signatures.

Electronic signature methods for the e-Manifest system shall:

(a) Be a legally valid and enforceable signature under applicable EPA and other Federal requirements pertaining to electronic signatures; and

(b) Be a method that is designed and implemented in a manner that EPA considers to be as cost-effective and practical as possible for the users of the manifest.

R315-262-27. Manifest Requirements Applicable to Small and Large Quantity Generators -- Waste Minimization Certification.

A generator who initiates a shipment of hazardous waste shall certify to one of the following statements in Item 15 of the uniform hazardous waste manifest:

(a) "I am a large quantity generator. I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment;" or

(b) "I am a small quantity generator. I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford."

R315-262-30. Pre-Transport Requirements Applicable to Small and Large Quantity Generators -- Packaging.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR parts 173, 178, and 179.

R315-262-31. Pre-Transport Requirements Applicable to Small and Large Quantity Generators -- Labeling.

Before transporting or offering hazardous waste for transportation off-site, a generator shall label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172.

R315-262-32. Pre-Transport Requirements Applicable to Small and Large Quantity Generators -- Marking.

(a) Before transporting or offering hazardous waste for transportation off-site, a generator shall mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172;

(b) Before transporting hazardous waste or offering hazardous waste for transportation off site, a generator shall mark each container of 119 gallons or less used in such transportation with the following words and information in accordance with the requirements of 49 CFR 172.304:

(1) HAZARDOUS WASTE-Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

(2) Generator's Name and Address ____.

(3) Generator's EPA Identification Number ____.

(4) Manifest Tracking Number ____.

(5) EPA Hazardous Waste Number(s) ____.

(c) A generator may use a nationally recognized electronic system, such as bar coding, to identify the EPA Hazardous Waste Number(s), as required by Subsection R315-262-32(b)(5) or paragraph (d).

(d) Lab packs that will be incinerated in compliance with Subsection R315-268-42(c) are not required to be marked with EPA Hazardous Waste Number(s), except D004, D005, D006, D007, D008, D010, and D011, where applicable.

R315-262-33. Pre-Transport Requirements Applicable to Small and Large Quantity Generators -- Placarding.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR part 172, subpart F.

R315-262-35. Pre-Transport Requirements Applicable to Small and Large Quantity Generators -- Liquids in Landfills Prohibition.

The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited. Prior to disposal in a hazardous waste landfill, liquids shall meet additional requirements as specified in Sections R315-264-314 and 40 CFR 265.314, which is incorporated by reference in Section R315-265-1.

R315-262-40. Recordkeeping and Reporting Applicable to Small and Large Quantity Generators -- Recordkeeping.

(a) A generator shall keep a copy of each manifest signed in accordance with Subsection R315-262-23(a) for three years or until he receives a signed copy from the designated facility which received the waste. This signed copy shall be retained as a record for at least three years from the date the waste was accepted by the initial transporter.

(b) A generator shall keep a copy of each Biennial Report and Exception Report for a period of at least three years from the due date of the report.

(c) A generator shall follow Subsection R315-262-11(f) for recordkeeping requirements for documenting hazardous waste determinations.

(d) The periods or retention referred to in Section R315-262-40 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director.

(e) Records maintained in accordance with Section R315-262-40 and any other records which the Director deems necessary to determine quantities and disposition of hazardous waste or other determinations, test results, or waste analyses made in accordance with R315-262-11 shall be available for inspection by any duly authorized officer, employee or representative of the Department or the Director as provided in R315-260-6 for a period of at least three years from the date the waste was last sent to on-site or off-site treatment, storage, or disposal facilities.

R315-262-41. Recordkeeping and Reporting Applicable to Small and Large Quantity Generators -- Biennial Report for Large Quantity Generators.

(a) A generator who is a large quantity generator for at least one month of an odd-numbered year, reporting year, who ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States shall complete and submit EPA Form 8700-13 A/B to the Director by March 1 of the following even-numbered year and shall cover generator activities during the previous year.

(b) Any generator who is a large quantity generator for at least one month of an odd-numbered year (reporting year) who treats, stores, or disposes of hazardous waste on site shall complete and submit EPA Form 8700-13 A/B to the Director by March 1 of the following even-numbered year covering those wastes in accordance with the provisions of Rules R315-264, R315-265, R315-266, and R315-270. This requirement also applies to large quantity generators that receive hazardous waste from very small quantity generators pursuant to Subsection R315-262-17(f).

(c) Exports of hazardous waste to foreign countries are not required to be reported on the Biennial Report form. A separate annual report requirement is set forth at Subsection R315-262-83(g) for hazardous waste exporters.

R315-262-42. Recordkeeping and Reporting Applicable to Small and Large Quantity Generators -- Exception Reporting.

(a)(1) A large quantity generator who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 35 days of the date the waste was accepted by the initial transporter shall contact the transporter, or the owner or operator of the designated facility, or both, to determine the status of the hazardous waste.

(2) A large quantity generator shall submit an Exception Report to the director if the generator has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 45 days of the date the waste was accepted by the initial transporter. The Exception Report shall include:

(i) a legible copy of the manifest that the generator does not have confirmation of delivery; and

(ii) a cover letter signed by the generator or the generator's authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(b) A small quantity generator of hazardous waste who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter shall submit a legible copy of the manifest, with an indication that the generator has not received confirmation of delivery, to the director.

(1) The submission to the director need only be a handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received.

(c) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are forwarded to an alternate facility by a designated facility using a new manifest, following the procedures of Subsections R315-264-72(e)(1) through R315-264-72(e)(6) or R315-265-72(e)(1) through R315-265-72(e)(6); the generator shall comply with the requirements of Subsection R315-262-42(a) or R315-262-42(b), as applicable, for the shipment forwarding the material from the designated facility to the alternate facility instead of for the shipment from the generator to the designated facility. For purposes of Subsection R315-262-42(a) or R315-262-42(b) for a shipment forwarding the waste to an alternate facility by a designated facility:

(1) The copy of the manifest received by the generator shall have the handwritten signature of the owner or operator of the alternate facility in place of the signature of the owner or operator of the designated facility; and

(2) The 35 or 45 or 60-day timeframes begin the date the waste was accepted by the initial transporter forwarding the

hazardous waste shipment from the designated facility to the alternate facility.

R315-262-43. Recordkeeping and Reporting Applicable to Small and Large Quantity Generators -- Additional Reporting.

The Director, as he deems necessary, may require generators to furnish additional reports concerning the quantities and disposition of wastes identified or listed in Rule R315-261.

R315-262-44. Recordkeeping and Reporting Applicable to Small and Large Quantity Generators -- Recordkeeping for Small Quantity Generators.

A small quantity generator is subject only to the following independent requirements in Sections R315-262-40 through R315-262-43:

(a) Subsection R315-262-40(a), (c), and (d), recordkeeping;

(b) Subsection R315-262-42(b), exception reporting; and

(c) Section R315-262-43, additional reporting.

R315-262-70. Farmers.

A farmer disposing of waste pesticides from his own use which are hazardous wastes is not required to comply with the standards in Rule R315-262 or other standards in Rules R315-264, R315-265, R315-268, or R315-270 for those wastes provided he triple rinses each emptied pesticide container in accordance with Subsection R315-261-7(b)(3) and disposes of the pesticide residues on his own farm in a manner consistent with the disposal instructions on the pesticide label.

R315-262-80. Transboundary Movements of Hazardous Waste for Recovery or Disposal -- Applicability.

(a) The requirements of Sections R315-262-80 through 84 apply to transboundary movements of hazardous wastes.

(b) Any person, including exporter, importer, disposal facility operator, or recovery facility operator, who mixes two or more wastes, including hazardous and non-hazardous wastes, or otherwise subjects two or more wastes, including hazardous and nonhazardous wastes, to physical or chemical transformation operations, and thereby creates a new hazardous waste, becomes a generator and assumes all subsequent generator duties under RCRA and any exporter duties, if applicable, under Sections R315-262-80 through 84.

R315-262-81. Transboundary Movements of Hazardous Waste for Recovery or Disposal -- Definitions.

In addition to the definitions set forth at Section R315-260-10, the following definitions apply to Sections R315-262-80 through R315-262-84:

"Competent authority" means the regulatory authority or authorities of concerned countries having jurisdiction over transboundary movements of wastes.

"Countries concerned" means the countries of export or import and any countries of transit.

"Country of export" means any country where a transboundary movement of hazardous wastes is planned to be initiated or is initiated.

"Country of import" means any country where a transboundary movement of hazardous wastes is planned to be sent or takes place to submit the wastes to recovery or disposal operations therein.

"Country of transit" means any country other than the country of export or country of import where a transboundary movement of hazardous wastes is planned to cross or takes place.

"Disposal operations" means activities that do not lead to the possibility of resource recovery, recycling, reclamation, direct re-use or alternate uses, which include:

D1 Release or Deposit into or onto land, other than by any of operations D2 through D5 or D12.

D2 Land treatment, such as biodegradation of liquids or sludges in soils.

D3 Deep injection, such as injection into wells, salt domes or naturally occurring repositories.

D4 Surface impoundment, such as placing of liquids or sludges into pits, ponds or lagoons.

D5 Specially engineered landfill, such as placement into lined discrete cells that are capped and isolated from one another and the environment.

D6 Release into a water body other than a sea or ocean, and other than by operation D4.

D7 Release into a sea or ocean, including sea-bed insertion, other than by operation D4.

D8 Biological treatment not specified elsewhere in operations D1 through D12, that results in final compounds or mixtures that are discarded by any of operations D1 through D12.

D9 Physical or chemical treatment not specified elsewhere in operations D1 through D12, such as evaporation, drying, calcination, neutralization, or precipitation, that results in final compounds or mixtures that are discarded by any of operations D1 through D12.

D10 Incineration on land.

D11 Incineration at sea.

D12 Permanent storage.

D13 Interim blending or mixing, before an operation that bears any of the disposal operations D1 to D12.

D14 Interim repackaging, before an operation that bears any of the disposal operations D1 to D12.

D15 Interim Storage, before an operation that bears any of the disposal operations D1 to D12.

DC1 Release, including the venting of compressed or liquified gases, or treatment, other than by any of operations D1 to

D12, for transboundary movements with Canada only.

DC2 Testing of a new technology to dispose of a hazardous waste, for transboundary movements with Canada only.

"EPA Acknowledgment of Consent" (AOC) means the letter EPA sends to the exporter documenting the specific terms of the country of import's consent and the countries of transit's consents. The AOC meets the definition of an export license in U.S. Census Bureau regulations 15 CFR 30.1.

"Export" means the transportation of hazardous waste from a location under the jurisdiction of the United States to a location under the jurisdiction of another country, or a location not under the jurisdiction of any country, for the purposes of recovery or disposal operations therein.

"Exporter, also known as primary exporter on the hazardous waste manifest", means the person domiciled in the United States who shall originate the movement document in accordance with Subsection R315-262-83(d) or the manifest for a shipment of hazardous waste in accordance with Sections R315-262-20 through R315-262-27, that specifies a foreign receiving facility as the facility where the hazardous wastes will be sent, or any recognized trader who proposes export of the hazardous wastes for recovery or disposal operations in the country of import.

"Foreign exporter" means the person under the jurisdiction of the country of export who has, or will have when the planned transboundary movement begins, possession or other forms of legal control of the hazardous wastes and who proposes shipment of the hazardous wastes to the United States for recovery or disposal operations.

"Foreign importer" means the person to whom possession or other form of legal control of the hazardous waste is assigned when the exported hazardous waste is received in the country of import.

"Foreign receiving facility" means a facility that, under the importing country's applicable domestic law, is operating or is authorized to operate in the country of import to receive the hazardous wastes and to perform recovery or disposal operations on them.

"Import" means the transportation of hazardous waste from a location under the jurisdiction of another country to a location under the jurisdiction of the United States for the purposes of recovery or disposal operations therein.

"Importer" means the person to whom possession or other form of legal control of the hazardous waste is assigned when the imported hazardous waste is received in the United States.

"OECD area" means any land or marine areas under the national jurisdiction of any OECD Member country. If the rules refer to shipments to or from an OECD Member country, this means OECD area.

"OECD" means the Organization for Economic Cooperation and Development.

"OECD Member country" means the countries that are members of the OECD and participate in the Amended 2001 OECD Decision. EPA provides a list of OECD Member countries at https://www.epa.gov/hwgenerators/international-agreementstransboundary- shipments-waste.

"Receiving facility" means a U.S. facility that, under RCRA and other applicable domestic laws, is operating or is authorized to operate to receive hazardous wastes and to perform recovery or disposal operations on them.

"Recovery operations" means activities leading to resource recovery, recycling, reclamation, direct re-use or alternative uses, which include:

R1 Use as a fuel, other than in direct incineration, or other means to generate energy.

R2 Solvent reclamation or regeneration.

R3 Recycling or reclamation of organic substances that are not used as solvents.

R4 Recycling or reclamation of metals and metal compounds.

R5 Recycling or reclamation of other inorganic materials.

R6 Regeneration of acids or bases.

R7 Recovery of components used for pollution abatement.

R8 Recovery of components used from catalysts.

R9 Used oil re-refining or other reuses of previously used oil.

R10 Land treatment resulting in benefit to agriculture or ecological improvement.

R11 Use of residual materials received from any of the recovery operation codes numbered R1 through R10 or RC1.

R12 Interim exchange of wastes before recycling using any of the recovery operation codes numbered R1 through R11 or RC1.

R13 Interim accumulation of wastes before recycling using any of the operation codes numbered R1 through R11 or RC1.

RC1 Recovery or regeneration of a substance or use or re-use of a recyclable material, other than by any of operations R1 to R10, for transboundary movements with Canada only.

RC2 Testing of a new technology to recycle a hazardous recyclable material, for transboundary movements with Canada only.

RC3 Interim storage before any of operations R1 to R11 or RC1, for transboundary movements with Canada only.

"Transboundary movement" means any movement of hazardous wastes from an area under the national jurisdiction of one country to an area under the national jurisdiction of another country.

R315-262-82. Transboundary Movements of Hazardous Waste for Recovery or Disposal -- General Conditions.

(a) Scope. The level of control for exports and imports of waste is indicated by assignment of the waste to either a list of wastes subject to the Green control procedures or a list of wastes subject to the Amber control procedures and whether the waste is or is not hazardous waste. The OECD Green and Amber lists are incorporated by reference in Section R315-260-11.

(1) Green list wastes.

(i) Green wastes that are not hazardous wastes are subject to existing controls normally applied to commercial transactions,

and are not subject to the requirements of Sections R315-262-80 through R315-262-84.

(ii) Green wastes that are hazardous wastes are subject to the requirements of Sections R315-262-80 through R315-262-84.

(2) Amber list wastes.

(i) Amber wastes that are hazardous wastes are subject to the requirements of Sections R315-262-80 through R315-262-84, even if they are imported to or exported from a country that does not consider the waste to be hazardous or control the transboundary shipment as a hazardous waste import or export.

(A) For exports, the exporter shall comply with Section R315-262-83.

(B) For imports, the recovery or disposal facility and the importer shall comply with Section R315-262-84.

(ii) Amber wastes that are not hazardous wastes, but are considered hazardous by the other country are subject to the Amber control procedures in the country that considers the waste hazardous, and are not subject to the requirements of Sections R315-262-80 through R315-262-84. The responsibilities of the importer or exporter shift to the foreign importer or foreign exporter in the other country that considers the waste hazardous unless the parties make other arrangements through contracts.

(A) Several Amber list wastes are not listed or otherwise identified as hazardous under RCRA, and therefore are not subject to the requirements of Sections R315-262-80 through R315-262-84. Regardless of the status of the waste under RCRA, however, other federal environmental statutes, for example, the Toxic Substances Control Act, restrict certain waste imports or exports. These restrictions continue to apply with regard to Sections R315-262-80 through R315-262-84.

(3) Mixtures of wastes.

(i) A Green waste that is mixed with one or more other Green wastes resulting in a mixture that is not hazardous waste is not subject to the requirements of Sections R315-262-80 through R315-262-84.

(A) The regulated community should note that several countries may require, by domestic law, that mixtures of different Green wastes be subject to the Amber control procedures.

(ii) A Green waste that is mixed with one or more Amber wastes, in any amount, de minimis or otherwise, or a mixture of two or more Amber wastes, resulting in a waste mixture that is hazardous waste is subject to the requirements of Sections R315-262-80 through R315-262-84.

(A) The regulated community should note that several countries may require, by domestic law, that a mixture of a Green waste and more than a de minimis amount of an Amber waste or a mixture of two or more Amber wastes be subject to the Amber control procedures.

(4) Wastes not yet assigned to an OECD waste list are eligible for transboundary movements, as follows:

(i) If the wastes are hazardous wastes, the wastes are subject to the requirements of Sections R315-262-80 through R315-262-84.

(ii) If the wastes are not hazardous wastes, the wastes are not subject to the requirements of Sections R315-262-80 through R315-262-84.

(b) General conditions applicable to transboundary movements of hazardous waste.

(1) The hazardous waste shall be destined for recovery or disposal operations at a facility that, under applicable domestic law, is operating or is authorized to operate in the country of import;

(2) The transboundary movement shall be in compliance with applicable international transport agreements that include the Chicago Convention (1944), ADR (1957), ADNR (1970), MARPOL Convention (1973/1978), SOLAS Convention (1974), IMDG Code (1985), COTIF (1985), and RID (1985); and

(3) Any transit of hazardous waste through one or more countries shall be conducted in compliance with the applicable international and national laws and regulations.

(c) Duty to return wastes subject to the Amber control procedures during transit through the United States. If a transboundary movement of hazardous wastes transiting the United States and subject to the Amber control procedures does not comply with the requirements of the notification and movement documents or otherwise constitutes illegal shipment, and if alternative arrangements cannot be made to recover or dispose of these wastes in an environmentally sound manner, the waste shall be returned to the country of export. The U.S. transporter shall inform EPA at the specified mailing address in Subsection R315-262-82(e) of the need to return the shipment. EPA will then inform the competent authority of the country of export, citing the reasons for returning the waste. The U.S. transporter shall finish the return within 90 days from the time EPA informs the country of export of the need to return the waste, unless informed in writing by EPA of another timeframe agreed to by the concerned countries.

(d) Laboratory analysis exemption. Export or import of a hazardous waste sample is exempt from the requirements of Sections R315-262-80 through R315-262-84 if the sample is destined for laboratory analysis to assess its physical or chemical characteristics, or to determine its suitability for recovery or disposal operations, does not exceed 25 kg in quantity, is appropriately packaged and labeled, and complies with the conditions of Subsection R315-261-4(d) or R315-261-4(e).

(e) EPA Address for submittals by postal mail or hand delivery. Submittals required in Sections R315-262-80 through R315-262-84 to be made by postal mail or hand delivery should be sent to the following addresses:

(1) For postal mail delivery, the Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch, Mail Code 2255A, Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460.

(2) For hand delivery, the Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch, Mail Code 2255T, Environmental Protection Agency, William Jefferson Clinton West Building, Room 1301 Constitution Ave., NW., Washington, DC 20004.

R315-262-83. Transboundary Movements of Hazardous Waste for Recovery or Disposal -- Exports of Hazardous Waste.

(a) General export requirements. Except as provided in Subsections R315-262-83(a)(5) and R315-262-83(a)(6), exporters that have received an AOC from EPA before December 31, 2016 are subject to that approval and the requirements listed in the AOC that existed at the time of that approval until the time that the approval period expires. Any other exports of hazardous waste are prohibited unless:

(1) the exporter complies with the contract requirements in Subsection R315-262-83(f);

(2) the exporter complies with the notification requirements in Subsection R315-262-83(b);

(3) the exporter receives an AOC from EPA documenting consent from the countries of import and transit, and original country of export if exporting previously imported hazardous waste;

(4) the exporter ensures compliance with the movement documents requirements in Subsection R315-262-83(d);

(5) the exporter ensures compliance with the manifest instructions for export shipments in Subsection R315-262-83(c); and

(6) the exporter or a U.S. authorized agent:

(i) For shipments initiated before the AES filing compliance date, does one of the following:

(A) Submits Electronic Export Information (EEI) for each shipment to the Automated Export System (AES) or its successor system, under the International Trade Data System (ITDS) platform, in accordance with 15 CFR 30.4(b), and includes the following items in the EEI, along with the other information required under 15 CFR 30.6:

(I) EPA license code;

(II) Commodity classification code for each hazardous waste per 15 CFR 30.6(a)(12);

(III) EPA consent number for each hazardous waste;

(IV) Country of ultimate destination code per 15 CFR 30.6(a)(5);

(V) Date of export per 15 CFR 30.6(a)(2);

(VI) hazardous waste manifest tracking number, if required;

(VII) Quantity of each hazardous waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6(a)(15); or

(VIII) EPA net quantity for each hazardous waste reported in units of kilograms if solid or in units of liters if liquid, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(B) Complies with a paper-based process by:

(I) Attaching paper documentation of consent, for example, a copy of the EPA Acknowledgment of Consent, international movement document, to the manifest, or shipping papers if a manifest is not required, that shall accompany the hazardous waste shipment. For exports by rail or water, bulk shipment, the primary exporter shall provide the transporter with the paper documentation of consent that shall accompany the hazardous waste but need not be attached to the manifest except that for exports by water, bulk shipment, the primary exporter shall attach the paper documentation of consent to the shipping paper.

(II) Providing the transporter with an additional copy of the manifest, and instructing the transporter via mail, email or fax to deliver that copy to the U.S. Customs official at the point the hazardous waste leaves the United States in accordance with Subsection R315-263-20(g)(4)(ii);

(ii) For shipments initiated on or after the AES filing compliance date, submits Electronic Export Information (EEI) for each shipment to the Automated Export System (AES) or its successor system, under the International Trade Data System (ITDS) platform, in accordance with 15 CFR 30.4(b), and includes the following items in the EEI, along with the other information required under 15 CFR 30.6:

(A) EPA license code;

(B) Commodity classification code for each hazardous waste per 15 CFR 30.6(a)(12);

(C) EPA consent number for each hazardous waste;

(D) Country of ultimate destination code per 15 CFR 30.6(a)(5);

(E) Date of export per 15 CFR 30.6(a)(2);

(F) hazardous waste manifest tracking number, if required;

(G) Quantity of each hazardous waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6(a)(15); or

(H) EPA net quantity for each hazardous waste reported in units of kilograms if solid or in units of liters if liquid, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(b) Notifications.

(1) General notifications. At least 60 days before the first shipment of hazardous waste is expected to leave the United States, the exporter shall provide notification in English to EPA of the proposed transboundary movement. Notifications shall be submitted electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The notification may cover up to one year of shipments of one or more hazardous wastes being sent to a recovery or disposal facility, and shall include the following information:

(i) Exporter name and EPA identification number, address, telephone, fax numbers, and email address;

(ii) Foreign receiving facility name, address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations as defined in Section R315-262-81;

(iii) Foreign importer name, if not the owner or operator of the foreign receiving facility, address, telephone, fax numbers, and email address;

(iv) Intended transporters, their agents, or both; address, telephone, fax, and email address;

(v) "U.S." as the country of export name, "USA01" as the relevant competent authority code, and the intended U.S. ports of exit;

(vi) The ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and the ports of entry and exit for each country of transit;

(vii) The ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and port of entry for the country of import;

(viii) Statement of whether the notification covers a single shipment or multiple shipments;

(ix) Start and End Dates requested for transboundary movements;

(x) Means of transport planned to be used;

(xi) Descriptions of each hazardous waste, including whether each hazardous waste is regulated universal waste under Rule R315-273, spent lead-acid batteries being exported for recovery of lead under Section R315-266-80, or industrial ethyl alcohol being exported for reclamation under Subsection R315-261-6(a)(3)(i), estimated total quantity of each waste in either metric tons or cubic meters, the applicable RCRA waste codes for each hazardous waste, the applicable OECD waste code from the lists incorporated by reference in Section R315-260-11, and the United Nations or U.S. Department of Transportation (DOT) ID number for each waste;

(xii) Specification of the recovery or disposal operations as defined in Section R315-262-81; and

(xiii) Certification or Declaration signed by the exporter that states: "I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally enforceable written contractual obligations have been entered into and that any applicable insurance or other financial guarantee is or shall be in force covering the transboundary movement. Name: Signature: Date:".

(2) Exports to pre-consented recovery facilities in OECD Member countries. If the recovery facility is located in an OECD member country and has been pre-consented by the competent authority of the OECD member country to recover the waste sent by exporters located in other OECD member countries, the notification may cover up to three years of shipments. Notifications proposing export to a pre-consented facility in an OECD member country shall include the information listed in Subsections R315-262-83(b)(1)(i) through R315-262-83(b)(1)(xiii) and additionally state that the facility is pre-consented. Exporters shall submit the notification to EPA using the allowable methods listed in Subsection R315-262-83(b)(1) at least ten days before the first shipment is expected to leave the United States.

(3) Notifications listing interim recycling operations or interim disposal operations. If the foreign receiving facility listed in Subsection R315-262-83(b)(1)(ii) will engage in any of the interim recovery operations R12 or R13 or interim disposal operations D13 through D15, or in the case of transboundary movements with Canada, any of the interim recovery operations R12, R13, or RC3, or interim disposal operations D13 to D14, or D15, the notification submitted according to Subsection R315-262-83(b)(1) shall also include the final foreign recovery or disposal facility name, address, telephone, fax numbers, email address, technologies used, and which of the applicable recovery or disposal operations R1 through R11 and D1 through D12, or in the case of transboundary movements with Canada, which of the applicable recovery or disposal operations R1 through R11, RC1 to RC2, D1 through D12, and DC1 to DC2 will be used at the final foreign recovery or disposal facility. The recovery and disposal operations in Subsection R315-262-83(b) are defined in Section R315-262-81.

(4) Renotifications. If the exporter wishes to change any of the information specified on the original notification, including increasing the estimate of the total quantity of hazardous waste specified in the original notification or adding transporters, the exporter shall submit a renotification of the changes to EPA using the allowable methods in Subsection R315-262-83(b)(1). Any shipment using the requested changes cannot take place until the countries of import and transit consent to the changes and the exporter receives an EPA AOC letter documenting the countries' consents to the changes.

(5) If the proposed country of import and recovery or disposal operations is not covered under an international agreement between the United States and the country of import, EPA will coordinate with the Department of State to provide the complete notification to country of import and any countries of transit. In any other case, EPA will provide the notification directly to the country of import and any countries of transit. A notification is complete when EPA receives a notification that EPA determines satisfies the requirements of Subsections R315-262-83(b)(1)(i) through R315-262-83(b)(1)(xiii).

(6) If the countries of import and transit consent to the proposed transboundary movements of the hazardous wastes, EPA will forward an EPA AOC letter to the exporter documenting the countries' consents. If any of the countries of import and transit objects to the proposed transboundary movements of the hazardous waste or withdraws an earlier consent, EPA will notify the exporter.

(7) Export of hazardous wastes for recycling or disposal operations that were originally imported into the United States for recycling or disposal operations in a third country is prohibited unless an exporter in the United States complies with the export requirements in Section R315-262-83, including providing notification to EPA in accordance with Subsection R315-262-83(b)(1). In addition to listing the required information in Subsections R315-262-83(b)(1)(i) through R315-262-83(b)(1)(xiii), the exporter shall provide the original consent number issued for the initial import of the wastes in the notification, and receive an AOC from EPA documenting the consent of the competent authorities in new country of import, the original country of export, and any transit countries before re-export.

(8) Upon request by EPA, the exporter shall furnish to EPA any additional information that the country of import requests to respond to a notification.

(c) Manifest instructions for export shipments. The exporter shall comply with the manifest requirements of Sections R315-262-20 through R315-262-23 except that:

(1) In lieu of the name, site address and EPA ID number of the designated permitted facility, the exporter shall enter the name and site address of the foreign receiving facility.

(2) In the International Shipments block, the exporter shall check the export box and enter the U.S. port of exit, city and state, from the United States.

(3) The exporter shall list the consent number from the AOC for each hazardous waste listed on the manifest, matched to the relevant list number for the hazardous waste from block 9b. If additional space is needed, the exporter should use Continuation Sheets, EPA Form 8700--22A.

(4) The exporter may get the manifest from any source that is registered with the U.S. EPA as a supplier of manifests, for example, states, waste handlers, or commercial forms printers.

(d) Movement document requirements for export shipments.

(1) Exporters shall ensure that a movement document meeting the conditions of Subsection R315-262-83(d)(2) accompanies each transboundary movement of hazardous wastes from the initiation of the shipment until it reaches the foreign receiving facility, including cases when the hazardous waste is stored, sorted by the foreign importer before shipment to the foreign receiving facility, or both, except as provided in Subsections R315-262-83(d)(1)(i) and R315-262-83(d)(1)(ii).

(i) For shipments of hazardous waste within the United States solely by water, bulk shipments only, the exporter shall forward the movement document to the last water, bulk shipment, transporter to handle the hazardous waste in the United States if exported by water.

(ii) For rail shipments of hazardous waste within the United States that start from the company originating the export shipment, the exporter shall forward the movement document to the next non-rail transporter, if any, or the last rail transporter to handle the hazardous waste in the United States if exported by rail.

(2) The movement document shall include the following Subsections R315-262-83(d)(2)(i) through R315-262-83(d)(2)(xv):

(i) The corresponding consent numbers and hazardous waste numbers for the listed hazardous waste from the relevant EPA AOCs;

(ii) The shipment number and the total number of shipments from the EPA AOC;

(iii) Exporter name and EPA identification number, address, telephone, fax numbers, and email address;

(iv) Foreign receiving facility name, address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations as defined in Section R315-262-81;

(v) Foreign importer name, if not the owner or operator of the foreign receiving facility, address, telephone, fax numbers, and email address;

(vi) Descriptions of each hazardous waste, quantity of each hazardous waste in the shipment, applicable RCRA hazardous waste codes for each hazardous waste, applicable OECD waste code for each hazardous waste from the lists incorporated by reference in Section R315-260-11, and the United Nations or U.S. Department of Transportation (DOT) ID number for each hazardous waste;

(vii) Date movement began;

(viii) Name, if not exporter, address, telephone, fax numbers, and email of company originating the shipment;

(ix) Company name, EPA ID number, address, telephone, fax, and email address of each transporter;

(x) Identification, for example, license, registered name or registration number, of means of transport, including types of packaging;

(xi) Any special precautions to be taken by transporters;

(xii) Certification or declaration signed and dated by the exporter that the information in the movement document is complete and correct;

(xiii) Appropriate signatures for each custody transfer, for example, transporter, importer, and owner or operator of the foreign receiving facility;

(xiv) Each U.S. person that has physical custody of the hazardous waste from the time the movement begins until it arrives at the foreign receiving facility shall sign the movement document, for example, transporter, foreign importer, and owner or operator of the foreign receiving facility; and

(xv) As part of the contract requirements per Subsection R315-262-83(f), the exporter shall require that the foreign receiving facility send a copy of the signed movement document to confirm receipt within three working days of shipment delivery to the exporter, to the competent authorities of the countries of import and transit, and for shipments occurring on or after the electronic import-export reporting compliance date, the exporter shall additionally require that the foreign receiving facility send a copy to EPA at the same time using the allowable methods listed in Subsection R315-262-83(b)(1).

(e) Duty to return or re-export hazardous wastes. If a transboundary movement of hazardous wastes cannot be finished in accordance with the terms of the contract or the consents and alternative arrangements cannot be made to recover or dispose of the waste in an environmentally sound manner in the country of import, the exporter shall ensure that the hazardous waste is returned to the United States or re-exported to a third country. If the waste shall be returned, the exporter shall provide for the return of the hazardous waste shipment within 90 days from the time the country of import informs EPA of the need to return the waste or another period as the concerned countries agree. In each case, the exporter shall submit an exception report to EPA in accordance with Subsection R315-262-83(h).

(f) Export contract requirements.

(1) Exports of hazardous waste are prohibited unless they occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements, if the movement occurs between parties controlled by the same corporate or legal entity. The contracts or equivalent arrangements shall be executed by the exporter, foreign importer, if different from the foreign receiving facility, and the owner or operator of the foreign receiving facility, and shall specify responsibilities for each. Contracts or equivalent arrangements are valid for the purposes of Section R315-262-83 only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangements.

(2) Contracts or equivalent arrangements shall specify the name and EPA ID number, if available, of Subsections R315-262-83(f)(2)(i) through R315-262-83(f)(2)(iv):

(i) The company from where each export shipment of hazardous waste is initiated;

(ii) Each person who will have physical custody of the hazardous wastes;

(iii) Each person who will have legal control of the hazardous wastes; and

(iv) The foreign receiving facility.

(3) Contracts or equivalent arrangements shall specify party to the contract that will assume responsibility for alternate management of the hazardous wastes if their disposition cannot be carried out as described in the notification of intent to export. In these cases, contracts shall specify that:

(i) the transporter or foreign receiving facility having actual possession or physical control over the hazardous wastes will immediately inform the exporter, EPA, and either the competent authority of the country of transit or the competent authority of the country of import of the need to make alternate management arrangements; and

(ii) the person specified in the contract will assume responsibility for the adequate management of the hazardous wastes in compliance with applicable laws and regulations including, if necessary, arranging the return of hazardous wastes and, as the case may be, shall provide the notification for re-export to the competent authority in the country of import and include the equivalent of the information required in Subsection R315-262-83(b)(1), the original consent number issued for the initial export of the hazardous wastes in the notification, and get consent from EPA and the competent authorities in the new country of import and any transit countries before re-export.

(4) Contracts shall specify that the foreign receiving facility send a copy of the signed movement document to confirm receipt within three working days of shipment delivery to the exporter and to the competent authorities of the countries of import and transit. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts shall additionally specify that the foreign receiving facility send a copy to EPA at the same time using the allowable methods listed in Subsection R315-262-83(b)(1) on or after that date.

(5) Contracts shall specify that the foreign receiving facility shall send a copy of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the exporter and to the competent authority of the country of import. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts shall additionally specify that the foreign receiving facility send a copy to EPA at the same time using the allowable methods listed in Subsection R315-262-83(b)(1) on or after that date.

(6) Contracts shall specify that the foreign importer or the foreign receiving facility that performed interim recycling operations R12, R13, or RC3, or interim disposal operations D13 through D15, recovery and disposal operations defined in Section R315-262-81, as appropriate, will:

(i) provide the notification required in Subsection R315-262-83(f)(3)(ii) before any re-export of the hazardous wastes to a final foreign recovery or disposal facility in a third country; and

(ii) promptly send copies of the confirmation of recovery or disposal that it receives from the final foreign recovery or disposal facility within one year of shipment delivery to the final foreign recovery or disposal facility that performed one of recovery operations R1 through R11, or RC1, or one of disposal operations D1 through D12, DC1 or DC2 to the competent authority of the country of import. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts shall additionally specify that the foreign facility send copies to EPA at the same time using the allowable method listed in Subsection R315-262-83(b)(1) on or after that date.

(7) Contracts or equivalent arrangements shall include provisions for financial guarantees, if required by the competent authorities of the country of import and any countries of transit, in accordance with applicable national or international law requirements.

(i) Financial guarantees so required are intended to provide for alternate recycling, disposal or other means of sound management of the wastes if arrangements for the shipment and the recovery operations cannot be carried out as foreseen. The United States does not require these financial guarantees at this time; however, several OECD Member countries and other foreign countries do. It is the responsibility of the exporter to ascertain and comply with the requirements and persons or facilities located in those OECD Member countries or other foreign countries may refuse to enter into the necessary contracts absent specific references or certifications to financial guarantees.

(8) Contracts or equivalent arrangements shall contain provisions requiring each contracting party to comply with the applicable requirements of Sections R315-262-80 through R315-262-84.

(9) Upon request by EPA, U.S. exporters, importers, or recovery facilities shall submit to EPA copies of contracts, chain of contracts, or equivalent arrangements, if the movement occurs between parties controlled by the same corporate or legal entity.

(g) Annual reports. The exporter shall file an annual report with EPA no later than March 1 of each year summarizing the types, quantities, frequency, and ultimate destination of any hazardous waste exported during the previous calendar year. Before one year after the AES filing compliance date, the exporter shall mail or hand-deliver annual reports to EPA using one of the addresses specified in Subsection R315-262-82(e), or submit to EPA using the allowable methods specified in Subsection R315-262-83(b)(1) if the exporter has electronically filed EPA information in AES, or its successor system, per Subsection R315-262-83(a)(6)(i)(A) for each shipment made the previous calendar year. Subsequently, the exporter shall submit annual reports to EPA using the allowable methods specified in Subsection R315-262-83(b)(1). The annual report shall include each of the following Subsections R315-262-83(g)(1) through R315-262-83(g)(6) specified as follows:

(1) The EPA identification number, name, and mailing and site address of the exporter filing the report;

(2) The calendar year covered by the report;

(3) The name and site address of each foreign receiving facility;

(4) By foreign receiving facility, for each hazardous waste exported:

(i) A description of the hazardous waste;

(ii) The applicable EPA hazardous waste codes, from Sections R315-261-20 through R315-261-24 and R315-261-30 through R315-261-35, for each waste;

(iii) The applicable waste code from the appropriate OECD waste list incorporated by reference in Section R315-260-11;

(iv) The applicable DOT ID number;

(v) The name and U.S. EPA ID number, if applicable, for each transporter used over the calendar year covered by the report; and

(vi) The consent numbers the hazardous waste was shipped under, and for each consent number, the total amount of the hazardous waste and the number of shipments exported during the calendar year covered by the report;

(5) In even numbered years, for each hazardous waste exported, except for hazardous waste produced by exporters of greater than 100kg but less than 1,000kg in a calendar month, and except for hazardous waste that the information was already provided pursuant to Section R315-262-41:

(i) A description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated; and

(ii) A description of the changes in volume and toxicity of the waste actually achieved during the year in comparison to previous years to the extent this information is available for years earlier than 1984; and

(6) A certification signed by the exporter that states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

(h) Exception reports.

(1) The exporter shall file an exception report in lieu of the requirements of Section R315-262-42, if applicable, with EPA if any of the following occurs:

(i) The exporter has not received a copy of the hazardous waste manifest, if applicable, signed by the transporter identifying the point of departure of the hazardous waste from the United States, within 45 days from the date it was accepted by the initial transporter, in this case the exporter shall file the exception report within the next 30 days;

(ii) The exporter has not received a written confirmation of receipt from the foreign receiving facility in accordance with Subsection R315-262-83(d) within 90 days from the date the waste was accepted by the initial transporter in this case the exporter shall file the exception report within the next 30 days; or

(iii) The foreign receiving facility notifies the exporter, or the country of import notifies EPA, of the need to return the shipment to the U.S. or arrange alternate management, in this case the exporter shall file the exception report within 30 days of notification, or one day before the date the return shipment begins, whichever is sooner.

(2) Before the electronic import-export reporting compliance date, exception reports shall be mailed or hand delivered to EPA using the addresses listed in Subsection R315-262-82(e). Subsequently, exception reports shall be submitted to EPA using the allowable methods listed in Subsection R315-262-83(b)(1).

(i) Recordkeeping.

(1) The exporter shall keep the following records as described in Subsections R315-262-83(i)(1)(i) through R315-262-83(i)(1)(v) and provide them to EPA or Utah personnel upon request:

(i) A copy of each notification of intent to export and each EPA AOC for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

(ii) A copy of each annual report for a period of at least three years from the due date of the report;

(iii) A copy of any exception reports and a copy of each confirmation of receipt, for example, movement document, sent by the foreign receiving facility to the exporter for at least three years from the date the hazardous waste was accepted by the initial transporter; and

(iv) A copy of each confirmation of recovery or disposal sent by the foreign receiving facility to the exporter for at least three years from the date that the foreign receiving facility finished interim or final processing of the hazardous waste shipment.

(v) A copy of each contract or equivalent arrangement established per Subsection R315-262-83(f) for at least three years from the expiration date of the contract or equivalent arrangement.

(2) Exporters may satisfy these recordkeeping requirements by keeping electronically submitted documents in the exporter's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, if copies are readily available for viewing and production if requested by any EPA or Utah inspector. No exporter may be held liable for the inability to produce the documents for inspection under Section R315-262-83 if the exporter can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system that is not the responsibility of the exporter.

(3) The periods of retention referred to in Section R315-262-83 are extended automatically during any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

R315-262-84. Transboundary Movements of Hazardous Waste for Recovery or Disposal -- Imports of Hazardous Waste.

(a) General import requirements.

(1) With the exception of Subsection R315-262-84(a)(5), importers of shipments covered under a consent from EPA to the country of export issued before December 31, 2016 are subject to that approval and the requirements that existed at the time of that approval until the time that the approval period expires. Otherwise, any other person who imports hazardous waste from a foreign

country into the United States shall comply with the requirements of Rule R315-262 and the special requirements of Sections R315-262-80 through R315-262-84.

(2) If the country of export does not require the foreign exporter to submit a notification and get consent to the export before shipment, the importer shall submit a notification to EPA in accordance with Subsection R315-262-84(b).

(3) The importer shall comply with the contract requirements in Subsection R315-262-84(f).

(4) The importer shall ensure compliance with the movement documents requirements in Subsection R315-262-84(d).

(5) The importer shall ensure compliance with the manifest instructions for import shipments in Subsection R315-262-84(c).

(b) Notifications. If the competent authority of the country of export does not regulate the waste as hazardous waste and, thus, does not require the foreign exporter to submit to it a notification proposing export and get consent from EPA and the competent authorities for the countries of transit, but EPA does regulate the waste as hazardous waste:

(1) The importer shall provide notification in English to EPA of the proposed transboundary movement of hazardous waste at least 60 days before the first shipment is expected to depart the country of export. Notifications submitted before the electronic import-export reporting compliance date shall be mailed or hand delivered to EPA at the addresses specified in Subsection R315-262-82(e). Notifications submitted on or after the electronic import-export reporting compliance date shall be submitted electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The notification may cover up to one year of shipments of one or more hazardous wastes being sent from the same foreign exporter, and shall include the following information:

(i) Foreign exporter name, address, telephone, fax numbers, and email address;

(ii) Receiving facility name, EPA ID number, address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations as defined in Section R315-262-81;

(iii) Importer name, if not the owner or operator of the receiving facility, EPA ID number, address, telephone, fax numbers, and email address;

(iv) Intended transporters, their agents, or both; address, telephone, fax, and email address;

(v) "U.S." as the country of import, "USA01" as the relevant competent authority code, and the intended U.S. ports of entry;

(vi) The ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and the ports of entry and exit for each country of transit;

(vii) The ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and port of exit for the country of export;

(viii) Statement of whether the notification covers a single shipment or multiple shipments;

(ix) Start and End Dates requested for transboundary movements;

(x) Means of transport planned to be used;

(xi) Descriptions of each hazardous waste, including whether each hazardous waste is regulated universal waste under Rule R315-273, spent lead-acid batteries being exported for recovery of lead under Section R315-266-80, or industrial ethyl alcohol being exported for reclamation under Subsection R315-261-6(a)(3)(i), estimated total quantity of each hazardous waste, the applicable RCRA hazardous waste codes for each hazardous waste, the applicable OECD waste code from the lists incorporated by reference in Section R315-260-11, and the United Nations or U.S. Department of Transportation (DOT) ID number for each hazardous waste;

(xii) Specification of the recovery or disposal operations as defined in Section R315-262-81; and

(xiii) Certification or Declaration signed by the importer that states: "I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally enforceable written contractual obligations have been entered into and that any applicable insurance or other financial guarantee is or shall be in force covering the transboundary movement. Name: Signature: Date:".

(A) The United States does not currently require financial assurance for these waste shipments.

(2) Notifications listing interim recycling operations or interim disposal operations. If the receiving facility listed in Subsection R315-262-84(b)(1)(ii) will engage in any of the interim recovery operations R12, R13, or RC3 or interim disposal operations D13 through D15, the notification submitted according to Subsection R315-262-84(b)(1) shall also include the final recovery or disposal facility name, address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations R1 through R11, RC1, and D1 through D12, that will be used at the final recovery or disposal facility. The recovery and disposal operations in Subsection R315-262-84(b)(2) are defined in Section R315-262-81.

(3) Renotifications. If the foreign exporter wishes to change any of the conditions specified on the original notification, including increasing the estimate of the total quantity of hazardous waste specified in the original notification or adding transporters, the importer shall submit a renotification of the changes to EPA using the allowable methods in Subsection R315-262-84(b)(1). Any shipment using the requested changes cannot take place until EPA and the countries of transit consent to the changes and the importer receives an EPA AOC letter documenting the consents to the changes.

(4) A notification is complete when EPA determines the notification satisfies the requirements of Subsections R315-262-84(b)(1)(i) through R315-262-84(b)(1)(xiii).

(5) If EPA and the countries of transit consent to the proposed transboundary movements of the hazardous wastes, EPA will forward an EPA AOC letter to the importer documenting the countries' consents and EPA's consent. If any of the countries of transit or EPA objects to the proposed transboundary movements of the hazardous waste or withdraws an earlier consent, EPA will notify the importer.

(6) Export of hazardous wastes originally imported into the United States. Export of hazardous wastes that were originally imported into the United States for recycling or disposal operations is prohibited unless an exporter in the United States complies with the export requirements in Subsection R315-262-83(b)(7).

(c) Manifest instructions for import shipments.

(1) When importing hazardous waste, the importer shall meet the requirements of Section R315-262-20 for the manifest except that:

(i) In place of the generator's name, address and EPA identification number, the name and address of the foreign generator and the importer's name, address and EPA identification number shall be used.

(ii) In place of the generator's signature on the certification statement, the importer or the importer's agent shall sign and date the certification and get the signature of the initial transporter.

(2) The importer may get the manifest form from any source that is registered with the EPA as a supplier of manifests, for example, states, waste handlers, or commercial forms printers.

(3) In the International Shipments block, the importer shall check the import box and enter the point of entry, city and state, into the United States.

(4) The importer shall provide the transporter with an additional copy of the manifest to be submitted by the receiving facility to U.S. EPA in accordance with Subsection R315-264-71(a)(3) and Subsection R315-265-71(a)(3).

(5) In lieu of the requirements of Subsection R315-262-20(d), if a shipment cannot be delivered for any reason to the receiving facility, the importer shall instruct the transporter in writing via fax, email or mail to:

(i) return the hazardous waste to the foreign exporter or designate another facility within the United States; and

(ii) revise the manifest in accordance with the importer's instructions.

(d) Movement document requirements for import shipments.

(1) The importer shall ensure that a movement document meeting the conditions of Subsection R315-262-84(d)(2) accompanies each transboundary movement of hazardous wastes from the initiation of the shipment in the country of export until it reaches the receiving facility, including cases where the hazardous waste is stored, sorted by the importer before shipment to the receiving facility, or both, except as provided in Subsections R315-262-84(d)(1)(i) and R315-262-84(d)(1)(ii).

(i) For shipments of hazardous waste within the United States by water, bulk shipments only, the importer shall forward the movement document to the last water, bulk shipment, transporter to handle the hazardous waste in the United States if imported by water.

(ii) For rail shipments of hazardous waste within the United States that start from the company originating the export shipment, the importer shall forward the movement document to the next non-rail transporter, if any, or the last rail transporter to handle the hazardous waste in the United States if imported by rail.

(2) The movement document shall include the following Subsections R315-262-84(d)(2)(i) through R315-262-84(d)(2)(xv):

(i) The corresponding AOC numbers and waste numbers for the listed waste;

(ii) The shipment number and the total number of shipments under the AOC number;

(iii) Foreign exporter name, address, telephone, fax numbers, and email address;

(iv) Receiving facility name, EPA ID number, address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations as defined in Section R315-262-81;

(v) Importer name, if not the owner or operator of the receiving facility, EPA ID number, address, telephone, fax numbers, and email address;

(vi) Descriptions of each hazardous waste, quantity of each hazardous waste in the shipment, applicable RCRA hazardous waste codes for each hazardous waste, the applicable OECD waste code for each hazardous waste from the lists incorporated by reference in Section R315-260-11, and the United Nations or U.S. Department of Transportation (DOT) ID number for each hazardous waste;

(vii) Date movement began;

(viii) Name, if not the foreign exporter, address, telephone, fax numbers, and email of the foreign company originating the shipment;

(ix) Company name, EPA ID number, address, telephone, fax, and email address of each transporter;

(x) Identification, license, registered name or registration number, of means of transport, including types of packaging;

(xi) Any special precautions to be taken by transporters;

(xii) Certification or declaration signed and dated by the foreign exporter that the information in the movement document is complete and correct;

(xiii) Appropriate signatures for each custody transfer, for example, transporter, importer, and owner or operator of the receiving facility;

(xiv) Each person that has physical custody of the waste from the time the movement begins until it arrives at the receiving facility shall sign the movement document, for example, transporter, importer, and owner or operator of the receiving facility; and

(xv) The receiving facility shall send a copy of the signed movement document to confirm receipt within three working days of shipment delivery to the foreign exporter, to the competent authorities of the countries of export and transit, and for shipments received on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system.

(e) Duty to return or export hazardous wastes. If a transboundary movement of hazardous wastes cannot be finished in accordance with the terms of the contract or the consents, Subsection R315-262-84(f)(4) applies. If alternative arrangements cannot be made to recover the hazardous waste in an environmentally sound manner in the United States, the hazardous waste shall be returned to the country of export or exported to a third country. Subsection R315-262-84(b)(6) applies to any hazardous waste shipments to be exported to a third country. If the return shipment will cross any transit country, the return shipment may only occur after EPA provides notification to and gets consent from the competent authority of the country of transit, and provides a copy of that consent to the importer.

(f) Import contract requirements.

(1) Imports of hazardous waste shall occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements, if the movement occurs between parties controlled by the same corporate or legal entity. These contracts or equivalent arrangements shall be executed by the foreign exporter, importer, and the owner or operator of the receiving facility, and shall specify responsibilities for each. Contracts or equivalent arrangements are valid for the purposes of Section R315-262-84 only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangements.

(2) Contracts or equivalent arrangements shall specify the name and EPA ID number, if available, of Subsections R315-262-84(f)(2)(i) through R315-262-84(f)(2)(iv):

(i) The foreign company from where each import shipment of hazardous waste is initiated;

(ii) Each person who will have physical custody of the hazardous wastes;

(iii) Each person who will have legal control of the hazardous wastes; and

(iv) The receiving facility.

(3) Contracts or equivalent arrangements shall specify the use of a movement document in accordance with Subsection R315-262-84(d).

(4) Contracts or equivalent arrangements shall specify the party to the contract that will assume responsibility for alternate management of the hazardous wastes if their disposition cannot be carried out as described in the notification of intent to export submitted by either the foreign exporter or the importer. In these cases, contracts shall specify that:

(i) the transporter or receiving facility having actual possession or physical control over the hazardous wastes will immediately inform the foreign exporter and importer, and the competent authority where the shipment is located of the need to arrange alternate management or return; and

(ii) the person specified in the contract will assume responsibility for the adequate management of the hazardous wastes in compliance with applicable laws and regulations including, if necessary, arranging the return of the hazardous wastes and, as the case may be, shall provide the notification for re-export required in Subsection R315-262-83(b)(7).

(5) Contracts shall specify that the importer or the receiving facility that performed interim recycling operations R12, R13, or RC3, or interim disposal operations D13 through D15, as appropriate, will provide the notification required in Subsection R315-262-83(b)(7) before the re-export of hazardous wastes. The recovery and disposal operations in Subsection R315-262-84(f)(5) are defined in Section R315-262-81.

(6) Contracts or equivalent arrangements shall include provisions for financial guarantees, if required by the competent authorities of any countries concerned, in accordance with applicable national or international law requirements.

(i) Financial guarantees so required are intended to provide for alternate recycling, disposal or other means of sound management of the wastes if arrangements for the shipment and the recovery operations cannot be carried out as foreseen. The United States does not require these financial guarantees at this time; however, several OECD Member countries or other foreign countries do. It is the responsibility of the importer to ascertain and comply with the requirements and persons or facilities located in those countries may refuse to enter into the necessary contracts absent specific references or certifications to financial guarantees.

(7) Contracts or equivalent arrangements shall contain provisions requiring each contracting party to comply with the applicable requirements of Sections R315-262-80 through R315-262-84.

(8) Upon request by EPA, importers or disposal or recovery facilities shall submit to EPA copies of contracts, chain of contracts, or equivalent arrangements, if the movement occurs between parties controlled by the same corporate or legal entity.

(g) Confirmation of recovery or disposal. The receiving facility shall do the following:

(1) Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export, and for shipments recycled or disposed of on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system.

(2) If the receiving facility performed any of recovery operations R12, R13, or RC3, or disposal operations D13 through D15, the receiving facility shall promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC1 to RC2, or one of disposal operations D1 through D12, or DC1 to DC2, to the competent authority of the country of export, and for confirmations received on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The recovery and disposal operations in Subsection R315-262-84(g)(2) are defined in Section R315-262-81.

(h) Recordkeeping.

(1) The importer shall keep the following records and provide them to EPA or authorized state personnel upon request:

(i) A copy of each notification that the importer sends to EPA under Subsection R315-262-84(b)(1) and each EPA AOC it receives in response for a period of at least three years from the date the hazardous waste was accepted by the initial foreign transporter; and

(ii) A copy of each contract or equivalent arrangement established per Subsection R315-262-84(f) for at least three years from the expiration date of the contract or equivalent arrangement.

(2) The receiving facility shall keep the following records:

(i) A copy of each confirmation of receipt, for example, movement document, that the receiving facility sends to the foreign exporter for at least three years from the date it received the hazardous waste;

(ii) A copy of each confirmation of recovery or disposal that the receiving facility sends to the foreign exporter for at least three years from the date that it finished processing the waste shipment;

(iii) For the receiving facility that performed any of recovery operations R12, R13, or RC3, or disposal operations D13 through D15, recovery and disposal operations defined in Section R315-262-81, a copy of each confirmation of recovery or disposal that the final recovery or disposal facility sent to it for at least three years from the date that the final recovery or disposal facility finished processing the waste shipment; and

(iv) A copy of each contract or equivalent arrangement established per Subsection R315-262-84(f) for at least three years from the expiration date of the contract or equivalent arrangement.

(3) Importers and receiving facilities may satisfy these recordkeeping requirements by keeping electronically submitted documents in the importer's or receiving facility's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, if copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No importer or receiving facility may be held liable for the inability to produce the documents for inspection under Subsection R315-262-84(h) if the importer or receiving facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system that is not the responsibility of the importer or receiving facility.

(4) The periods of retention referred to in Section R315-262-84 are extended automatically during any unresolved enforcement action regarding the regulated activity or as requested by the director.

R315-262-200. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Definitions for Sections R315-262-200 Through R315-262-216.

(a) The following definitions apply to Sections R315-262-200 through R315-262-216:

(1) "College/University" means a private or public, post-secondary, degree-granting, academic institution, that is accredited by an accrediting agency listed annually by the U.S. Department of Education.

(2) "Eligible academic entity" means a college or university, or a non-profit research institute that is owned by or has a formal written affiliation agreement with a college or university, or a teaching hospital that is owned by or has a formal written affiliation agreement with a college or university.

(3) "Formal written affiliation agreement for a non-profit research institute" means a written document that establishes a relationship between institutions for the purposes of research or education, or both, and is signed by authorized representatives, as defined by Section R315-260-10, from each institution. A relationship on a project-by-project or grant-by-grant basis is not considered a formal written affiliation agreement. A formal written affiliation agreement for a teaching hospital means a master affiliation agreement and program letter of agreement, as defined by the Accreditation Council for Graduate Medical Education, with an accredited medical program or medical school.

(4) Laboratory means an area owned by an eligible academic entity where relatively small quantities of chemicals and other substances are used on a non-production basis for teaching or research, or diagnostic purposes at a teaching hospital, and are stored and used in containers that are easily manipulated by one person. Photo laboratories, art studios, and field laboratories are considered laboratories. Areas such as chemical stockrooms and preparatory laboratories that provide a support function to teaching or research laboratories, or diagnostic laboratories at teaching hospitals, are also considered laboratories.

(5) "Laboratory clean-out" means an evaluation of the inventory of chemicals and other materials in a laboratory that are no longer needed or that have expired and the subsequent removal of those chemicals or other unwanted materials from the laboratory. A clean-out may occur for several reasons. It may be on a routine basis, for example, at the end of a semester or academic year, or as a result of a renovation, relocation, or change in laboratory supervisor or occupant. A regularly scheduled removal of unwanted material as required by Section R315-262-208 does not qualify as a laboratory clean-out.

(6) "Laboratory worker" means a person who handles chemicals or unwanted material, or both, in a laboratory and may include, but is not limited to, faculty, staff, post-doctoral fellows, interns, researchers, technicians, supervisors or managers, and principal investigators. A person does not need to be paid or otherwise compensated for their work in the laboratory to be considered a laboratory worker. Undergraduate and graduate students in a supervised classroom setting are not laboratory workers.

(7) "Non-profit research institute" means an organization that conducts research as its primary function and files as a non-profit organization under the tax code of 26 U.S.C. 501(c)(3).

(8) "Reactive acutely hazardous unwanted material" means an unwanted material that is one of the acutely hazardous commercial chemical products listed in Subsection R315-261-33(e) for reactivity.

(9) "Teaching hospital" means a hospital that trains students to become physicians, nurses or other health or laboratory personnel.

(10) "Trained professional" means a person who has finished the applicable training requirements of Section R315-262-17 for large quantity generators, or is knowledgeable about normal operations and emergencies in accordance with Subsection R315-262-16(b)(9)(iii) for small quantity generators and for very small quantity generators that opt into Sections R315-262-200 through R315-262-216. A trained professional may be an employee of the eligible academic entity or may be a contractor or vendor who meets the requisite training requirements.

(11) "Unwanted material" means any chemical, mixtures of chemicals, products of experiments or other material from a laboratory that is no longer needed, wanted or usable in the laboratory and that is destined for hazardous waste determination by a trained professional. Unwanted materials include reactive acutely hazardous unwanted materials and materials that may eventually be determined not to be solid waste pursuant to Section R315-261-2, or a hazardous waste pursuant to Section R315-261-3. If an eligible academic entity elects to use another equally effective term in lieu of "unwanted material," as allowed by Subsection R315-262-

206(a)(1)(i), the equally effective term has the meaning and is subject to the requirements of "unwanted material" under Sections R315-262-200 through R315-262-216.

(12) "Working container" means a small container, that is, two gallons or less, that is in use at a laboratory bench, hood, or other workstation, to collect unwanted material from a laboratory experiment or procedure.

R315-262-201. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Applicability of Sections R315-262-200 through R315-262-216.

(a) Large quantity generators and small quantity generators. Sections R315-262-200 through R315-262-216 provides alternative requirements to the requirements in Sections R315-262-11 and R315-262-15 for the hazardous waste determination and accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to Sections R315-262-200 through R315-262-216, provided that they complete the notification requirements of Section R315-262-203.

(b) Very small quantity generators. Sections R315-262-200 through R315-262-216 provide alternative requirements to the conditional exemption in Section R315-262-14 for the accumulation of hazardous waste in laboratories owned by eligible academic entities that choose to be subject to Sections R315-262-200 through R315-262-216, provided that they complete the notification requirements of Section R315-262-203.

R315-262-202. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Sections R315-262-200 through R315-262-216 are Optional.

(a) Large quantity generators and small quantity generators. Eligible academic entities have the option of complying with Sections R315-262-200 through R315-262-216 with respect to its laboratories, as an alternative to complying with the requirements of Section R315-262-11 and Section R315-262-15.

(b) Very small quantity generators. Eligible academic entities have the option of complying with Sections R315-262-200 through 216 with respect to laboratories, as an alternative to complying with the conditional exemption of Section R315-262-14.

R315-262-203. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- How an Eligible Academic Entity Indicates it will be Subject to the Requirements of Sections R315-262-200 through R315-262-216.

(a) An eligible academic entity shall notify the Director in writing, using the RCRA Subtitle C Site Identification Form, EPA Form 8700-12, that it is electing to be subject to the requirements of Sections R315-262-200 through R315-262-216 for all the laboratories owned by the eligible academic entity under the same EPA Identification Number. An eligible academic entity that is a very small quantity generator and does not have an EPA Identification Number shall notify that it is electing to be subject to the requirements of Sections R315-262-200 through R315-262-216 for all the laboratories owned by the eligible academic entity that are on-site, as defined by Section R315-260-10. An eligible academic entity shall submit a separate notification, Site Identification Form, for each EPA Identification Number, or site, for very small quantity generators, that is electing to be subject to the requirements of Sections R315-262-200 through R315-262-216, and shall submit the Site Identification Form before it begins operating under Sections R315-262-200 through R315-262-216.

(b) When submitting the Site Identification Form, the eligible academic entity shall, at a minimum, fill out the following fields on the form:

(1) Reason for Submittal.
(2) Site EPA Identification Number, except for very small quantity generators.
(3) Site Name.
(4) Site Location Information.
(5) Site Land Type.
(6) North American Industry Classification System (NAICS) Code(s) for the Site.
(7) Site Mailing Address.
(8) Site Contact Person.
(9) Operator and Legal Owner of the Site.
(10) Type of Regulated Waste Activity.
(11) Certification.

(c) An eligible academic entity shall keep a copy of the notification on file at the eligible academic entity for as long as its laboratories are subject to Sections R315-262-200 through R315-262-216.

(d) A teaching hospital that is not owned by a college or university shall keep a copy of its formal written affiliation agreement with a college or university on file at the teaching hospital for as long as its laboratories are subject to Sections R315-262-200 through R315-262-216.

(e) A non-profit research institute that is not owned by a college or university shall keep a copy of its formal written affiliation agreement with a college or university on file at the non-profit research institute for as long as its laboratories are subject to Sections R315-262-200 through R315-262-216.

R315-262-204. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - How an Eligible Academic Entity Indicates It Will Withdraw from the Requirements of Sections R315-262-200 Through 216.

(a) An eligible academic entity shall notify the Director in writing, using the RCRA Subtitle C Site Identification Form (EPA

Form 8700-12), that it is electing to no longer be subject to the requirements of Sections R315-262-200 through R315-262-216 for all the laboratories owned by the eligible academic entity under the same EPA Identification Number and that it will comply with the requirements of Sections R315-262-11 and R315-262-15 for small quantity generators and large quantity generators. An eligible academic entity that is a very small quantity generator and does not have an EPA Identification Number shall notify that it is withdrawing from the requirements of Sections R315-262-200 through R315-262-216 for all the laboratories owned by the eligible academic entity that are on-site and that it will comply with the conditional exemption in Section R315-262-14. An eligible academic entity shall submit a separate notification, Site Identification Form, for each EPA Identification Number, or site, for very small quantity generators, that is withdrawing from the requirements of Sections R315-262-200 through R315-262-216 and shall submit the Site Identification Form before it begins operating under the requirements of Sections R315-262-11 and R315-262-15 for small quantity generators and large quantity generators, or Section R315-262-14 for very small quantity generators.

(b) When submitting the Site Identification Form, the eligible academic entity shall, at a minimum, fill out the following fields on the form:

(1) Reason for Submittal.
(2) Site EPA Identification Number, except for very small quantity generators.
(3) Site Name.
(4) Site Location Information.
(5) Site Land Type.
(6) North American Industry Classification System (NAICS) Code(s) for the Site.
(7) Site Mailing Address.
(8) Site Contact Person.
(9) Operator and Legal Owner of the Site.
(10) Type of Regulated Waste Activity.
(11) Certification.

(c) An eligible academic entity shall keep a copy of the withdrawal notice on file at the eligible academic entity for three years from the date of the notification.

R315-262-205. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities Summary of the Requirements of Sections R315-262-200 through R315-262-216.

An eligible academic entity that chooses to be subject to Sections R315-262-200 through 216 is not required to have interim status or a RCRA Part B permit for the accumulation of unwanted material and hazardous waste in its laboratories, provided the laboratories comply with the provisions of Sections R315-262-200 through 216 and the eligible academic entity has a Laboratory Management Plan (LMP) in accordance with Section R315-262-214 that describes how the laboratories owned by the eligible academic entity will comply with the requirements of Sections R315-262-200 through 216.

R315-262-206. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Labeling and Management Standards for Containers of Unwanted Material in the Laboratory.

An eligible academic entity shall manage containers of unwanted material while in the laboratory in accordance with the requirements in Section R315-262-206.

(a) Labeling: Label unwanted material as follows:

(1) The following information shall be affixed or attached to the container:

(i) The words "unwanted material" or another equally effective term that is to be used consistently by the eligible academic entity and that is identified in Part I of the Laboratory Management Plan, and

(ii) Sufficient information to alert emergency responders to the contents of the container. Examples of information that would be sufficient to alert emergency responders to the contents of the container include, but are not limited to:

(A) The name of the chemical(s),

(B) The type or class of chemical, such as organic solvents or halogenated organic solvents.

(2) The following information may be affixed or attached to the container, but shall at a minimum be associated with the container:

(i) The date that the unwanted material first began accumulating in the container, and

(ii) Information sufficient to allow a trained professional to properly identify whether an unwanted material is a solid and hazardous waste and to assign the proper hazardous waste code(s), pursuant to Section R315-262-11. Examples of information that would allow a trained professional to properly identify whether an unwanted material is a solid or hazardous waste include, but are not limited to:

(A) The name and/or description of the chemical contents or composition of the unwanted material, or, if known, the product of the chemical reaction,

(B) Whether the unwanted material has been used or is unused,

(C) A description of the manner in which the chemical was produced or processed, if applicable.

(b) Management of Containers in the Laboratory. An eligible academic entity shall properly manage containers of unwanted material in the laboratory to assure safe storage of the unwanted material, to prevent leaks, spills, emissions to the air, adverse chemical reactions, and dangerous situations that may result in harm to human health or the environment. Proper container

management shall include the following:

(1) Containers are maintained and kept in good condition and damaged containers are replaced, overpacked, or repaired, and

(2) Containers are compatible with their contents to avoid reactions between the contents and the container; and are made of, or lined with, material that is compatible with the unwanted material so that the container's integrity is not impaired, and

(3) Containers shall be kept closed at all times, except:

(i) When adding, removing or bulking unwanted material, or

(ii) A working container may be open until the end of the procedure or work shift, or until it is full, whichever comes first, at which time the working container shall either be closed or the contents emptied into a separate container that is then closed, or

(iii) When venting of a container is necessary:

(A) For the proper operation of laboratory equipment, such as with in-line collection of unwanted materials from high performance liquid chromatographs; or

(B) To prevent dangerous situations, such as build-up of extreme pressure.

R315-262-207. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Training.

An eligible academic entity shall provide training to all individuals working in a laboratory at the eligible academic entity, as follows:

(a) Training for laboratory workers and students shall be commensurate with their duties so they understand the requirements in Sections R315-262-200 through 216 and can implement them.

(b) An eligible academic entity can provide training for laboratory workers and students in a variety of ways, including, but not limited to:

(1) Instruction by the professor or laboratory manager before or during an experiment; or

(2) Formal classroom training; or

(3) Electronic/written training; or

(4) On-the-job training; or

(5) Written or oral exams.

(c) An eligible academic entity that is a large quantity generator shall maintain documentation for the durations specified in 40 CFR 265.16(e), which is incorporated by reference in R315-265-1, demonstrating training for all laboratory workers that is sufficient to determine whether laboratory workers have been trained. Examples of documentation demonstrating training can include, but are not limited to, the following:

(1) Sign-in/attendance sheet(s) for training session(s); or

(2) Syllabus for training session; or

(3) Certificate of training completion; or

(4) Test results.

(d) A trained professional shall:

(1) Accompany the transfer of unwanted material and hazardous waste when the unwanted material and hazardous waste is removed from the laboratory, and

(2) Make the hazardous waste determination, pursuant to Subsections R315-262-11(a) through (d), for unwanted material.

R315-262-208. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Removing Containers of Unwanted Material from the Laboratory.

(a) Removing containers of unwanted material on a regular schedule. An eligible academic entity shall either:

(1) Remove all containers of unwanted material from each laboratory on a regular interval, not to exceed 12 months; or

(2) Remove containers of unwanted material from each laboratory within 12 months of each container's accumulation start date.

(b) The eligible academic entity shall specify in Part I of its Laboratory Management Plan whether it will comply with Subsection R315-262-208(a)(1) or (a)(2) for the regular removal of unwanted material from its laboratories.

(c) The eligible academic entity shall specify in Part II of its Laboratory Management Plan how it will comply with Subsection R315-262-208(a)(1) or (a)(2) and develop a schedule for regular removals of unwanted material from its laboratories.

(d) Removing containers of unwanted material when volumes are exceeded.

(1) If a laboratory accumulates a total volume of unwanted material, including reactive acutely hazardous unwanted material, in excess of 55 gallons before the regularly scheduled removal, the eligible academic entity shall ensure that all containers of unwanted material in the laboratory, including reactive acutely hazardous unwanted material:

(i) Are marked on the label that is associated with the container, or on the label that is affixed or attached to the container, if that is preferred, with the date that 55 gallons is exceeded; and

(ii) Are removed from the laboratory within 10 calendar days of the date that 55 gallons was exceeded, or at the next regularly scheduled removal, whichever comes first.

(2) If a laboratory accumulates more than 1 quart of liquid reactive acutely hazardous unwanted material or more than 1 kg (2.2 pounds) of solid reactive acutely hazardous unwanted material before the regularly scheduled removal, then the eligible academic entity shall ensure that all containers of reactive acutely hazardous unwanted material:

(i) Are marked on the label that is associated with the container, or on the label that is affixed or attached to the container, if that is preferred, with the date that 1 quart or 1 kg is exceeded; and

(ii) Are removed from the laboratory within 10 calendar days of the date that 1 quart or 1 kg was exceeded, or at the next regularly scheduled removal, whichever comes first.

R315-262-209. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Where and When to Make the Hazardous Waste Determination and Where to Send Containers of Unwanted Material Upon Removal from the Laboratory.

(a) Large quantity generators and small quantity generators-an eligible academic entity shall ensure that a trained professional makes a hazardous waste determination, pursuant to Section R315-262-11, for unwanted material in any of the following areas:

(1) In the laboratory before the unwanted material is removed from the laboratory, in accordance with Section R315-262-210;

(2) Within 4 calendar days of arriving at an on-site central accumulation area, in accordance with Section R315-262-211; and

(3) Within 4 calendar days of arriving at an on-site interim status or permitted treatment, storage or disposal facility, in accordance with Section R315-262-212.

(b) Very small quantity generators-An eligible academic entity shall ensure that a trained professional makes a hazardous waste determination, pursuant to Subsections R315-262-11(a) through (d), for unwanted material in the laboratory before the unwanted material is removed from the laboratory, in accordance with Section R315-262-210.

R315-262-210. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Making the Hazardous Waste Determination in the Laboratory Before the Unwanted Material is Removed from the Laboratory.

If an eligible academic entity makes the hazardous waste determination, pursuant to Section R315-262-11, for unwanted material in the laboratory, it shall comply with the following:

(a) A trained professional shall make the hazardous waste determination, pursuant to Subsections R315-262-11(a) through (d), before the unwanted material is removed from the laboratory.

(b) If an unwanted material is a hazardous waste, the eligible academic entity shall:

(1) Write the words "hazardous waste" on the container label that is affixed or attached to the container, before the hazardous waste may be removed from the laboratory; and

(2) Write the appropriate hazardous waste code(s) on the label that is associated with the container, or on the label that is affixed or attached to the container, if that is preferred, before the hazardous waste is transported off-site.

(3) Count the hazardous waste toward the eligible academic entity's generator status, pursuant to Section R315-262-13, in the calendar month that the hazardous waste determination was made.

(c) A trained professional shall accompany all hazardous waste that is transferred from the laboratory(ies) to an on-site central accumulation area or on-site interim status or permitted treatment, storage or disposal facility.

(d) When hazardous waste is removed from the laboratory:

(1) Large quantity generators and small quantity generators shall ensure it is taken directly from the laboratory(ies) to an on-site central accumulation area, or on-site interim status or permitted treatment, storage or disposal facility, or transported off-site.

(2) Very small quantity generators shall ensure it is taken directly from the laboratory(ies) to any of the types of facilities listed in Section R315-262-14.

(e) An unwanted material that is a hazardous waste is subject to all applicable hazardous waste regulations when it is removed from the laboratory.

R315-262-211. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities - Making the Hazardous Waste Determination at an On-Site Central Accumulation Area.

If an eligible academic entity makes the hazardous waste determination, pursuant to Section R315-262-11, for unwanted material at an on-site central accumulation area, it shall comply with the following:

(a) A trained professional shall accompany all unwanted material that is transferred from the laboratory(ies) to an on-site central accumulation area.

(b) All unwanted material removed from the laboratory(ies) shall be taken directly from the laboratory(ies) to the on-site central accumulation area.

(c) The unwanted material becomes subject to the generator accumulation regulations of Section R315-262-16 for small quantity generators or Section R315-262-17 for large quantity generators as soon as it arrives in the central accumulation area, except for the "hazardous waste" labeling conditions of Subsections R315-262-16(b)(6) and 17(a)(5).

(d) A trained professional shall determine, pursuant to Subsections R315-262-11(a) through (d), if the unwanted material is a hazardous waste within 4 calendar days of the unwanted materials' arrival at the on-site central accumulation area.

(e) If the unwanted material is a hazardous waste, the eligible academic entity shall:

(1) Write the words "hazardous waste" on the container label that is affixed or attached to the container, within 4 calendar days of arriving at the on-site central accumulation area and before the hazardous waste may be removed from the on-site central accumulation area, and

(2) Write the appropriate hazardous waste code(s) on the container label that is associated with the container, or on the label

that is affixed or attached to the container, if that is preferred, before the hazardous waste may be treated or disposed of on-site or transported off-site, and

(3) Count the hazardous waste toward the eligible academic entity's generator category, pursuant to Section R315-262-13 in the calendar month that the hazardous waste determination was made, and

(4) Manage the hazardous waste according to all applicable hazardous waste regulations.

R315-262-212. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Making the Hazardous Waste Determination at an On-Site Interim Status or Permitted Treatment, Storage or Disposal Facility.

If an eligible academic entity makes the hazardous waste determination, pursuant to Section R315-262-11, for unwanted material at an on-site interim status or permitted treatment, storage or disposal facility, it shall comply with the following:

(a) A trained professional shall accompany any unwanted material that is transferred from the laboratories to an on-site interim status or permitted treatment, storage or disposal facility.

(b) Any unwanted material removed from the laboratories shall be taken directly from the laboratories to the on-site interim status or permitted treatment, storage or disposal facility.

(c) The unwanted material becomes subject to the terms of the eligible academic entity's hazardous waste permit or interim status as soon as it arrives in the on-site treatment, storage or disposal facility.

(d) A trained professional shall determine, pursuant to Subsections R315-262-11(a) through R315-262-11(d), if the unwanted material is a hazardous waste within four calendar days of the unwanted materials' arrival at an on-site interim status or permitted treatment, storage or disposal facility.

(e) If the unwanted material is a hazardous waste, the eligible academic entity shall:

(1) write the words "Hazardous Waste" on the container label that is affixed or attached to the container within four calendar days of arriving at the on-site interim status or permitted treatment, storage or disposal facility and before the hazardous waste may be removed from the on-site interim status or permitted treatment, storage or disposal facility; and

(2) write the appropriate hazardous waste codes on the container label that is associated with the container, or on the label that is affixed or attached to the container, if that is preferred, before the hazardous waste may be treated or disposed on-site or transported off-site; and

(3) Count the hazardous waste toward the eligible academic entity's generator status, pursuant to Section R315-262-13 in the calendar month that the hazardous waste determination was made; and

(4) Manage the hazardous waste according to the applicable hazardous waste rules.

R315-262-213. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Laboratory Clean-outs.

(a) One time per 12-month period for each laboratory, an eligible academic entity may opt to conduct a laboratory clean-out that is subject to the applicable requirements of Sections R315-262-200 through R315-262-216, except that:

(1) if the volume of unwanted material in the laboratory exceeds 55 gallons, or 1 quart of liquid reactive acutely hazardous unwanted material or 1 kg of solid reactive acutely hazardous unwanted material, the eligible academic entity is not required to remove any unwanted materials from the laboratory within ten calendar days of exceeding 55 gallons, or 1 quart of liquid reactive acutely hazardous unwanted material or 1 kg of solid reactive acutely hazardous unwanted material, as required by Section R315-262-208. Instead, the eligible academic entity shall remove the unwanted materials from the laboratory within 30 calendar days from the start of the laboratory clean-out; and

(2) for on-site accumulation, an eligible academic entity is not required to count a hazardous waste that is an unused commercial chemical product, listed in Sections R315-261-30 through R315-261-35 or exhibiting one or more characteristics in Sections R315-261-20 through R315-261-24, generated solely during the laboratory clean-out toward its hazardous waste generator category, pursuant to Section R315-262-13. An unwanted material that is generated before the beginning of the laboratory clean-out and is still in the laboratory when the laboratory clean-out begins shall be counted toward hazardous waste generator category, pursuant to Section R315-262-13, if it is determined to be hazardous waste; and

(3) for off-site management, an eligible academic entity shall count its hazardous waste, regardless of whether the hazardous waste was counted toward generator category under Subsection R315-262-213(a)(2), and if it generates more than 1 kg per month of acute hazardous waste or more than 100 kg per month of non-acute hazardous waste, that is, the very small quantity generator limits as defined in Section R315-260-10, the hazardous waste is subject to the applicable hazardous waste rules if it is transported off site; and

(4) an eligible academic entity shall document the activities of the laboratory clean-out. The documentation shall, at a minimum, identify the laboratory being cleaned out, the date the laboratory clean-out begins and ends, and the volume of hazardous waste generated during the laboratory clean-out. The eligible academic entity shall maintain the records for a period of three years from the date the clean-out ends.

(b) For any other laboratory clean-outs conducted during the 12-month period, an eligible academic entity is subject to the applicable requirements of Sections R315-262-200 through R315-262-216, including:

(1) The requirement to remove unwanted materials from the laboratory within ten calendar days of exceeding 55 gallons, or 1 quart of reactive acutely hazardous unwanted material, as required by Section R315-262-208; and

(2) The requirement to count each hazardous waste, including unused hazardous waste, generated during the laboratory clean-out toward its hazardous waste generator category, pursuant to Section R315-262-13.

R315-262-214. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities Laboratory Management Plan.

An eligible academic entity shall develop and retain a written Laboratory Management Plan, or revise an existing written plan. The Laboratory Management Plan is a site-specific document that describes how the eligible academic entity will manage unwanted materials in compliance with Sections R315-262-200 through 216. An eligible academic entity may write one Laboratory Management Plan for all the laboratories owned by the eligible academic entity that have opted into Sections R315-262-200 through 216, even if the laboratories are located at sites with different EPA Identification Numbers. The Laboratory Management Plan shall contain two parts with a total of nine elements identified in Subsections R315-262-214(a) and (b). In Part I of its Laboratory Management Plan, an eligible academic entity shall describe its procedures for each of the elements listed in Subsection R315-262-214(a). An eligible academic entity shall implement and comply with the specific provisions that it develops to address the elements in Part I of the Laboratory Management Plan. In Part II of its Laboratory Management Plan, an eligible academic entity shall describe its best management practices for each of the elements listed in Subsection R315-262-214(b). The specific actions taken by an eligible academic entity to implement each element in Part II of its Laboratory Management Plan may vary from the procedures described in the eligible academic entity's Laboratory Management Plan, without constituting a violation of Sections R315-262-200 through 216. An eligible academic entity may include additional elements and best management practices in Part II of its Laboratory Management Plan if it chooses.

(a) The eligible academic entity shall implement and comply with the specific provisions of Part I of its Laboratory Management Plan. In Part I of its Laboratory Management Plan, an eligible academic entity shall:

(1) Describe procedures for container labeling in accordance with Subsection R315-262-206(a), as follows:

(i) Identifying whether the eligible academic entity will use the term "unwanted material" on the containers in the laboratory. If not, identify an equally effective term that will be used in lieu of "unwanted material" and consistently by the eligible academic entity. The equally effective term, if used, has the same meaning and is subject to the same requirements as "unwanted material."

(ii) Identifying the manner in which information that is "associated with the container" will be imparted.

(2) Identify whether the eligible academic entity will comply with Subsection R315-262-208(a)(1) or (a)(2) for regularly scheduled removals of unwanted material from the laboratory.

(b) In Part II of its Laboratory Management Plan, an eligible academic entity shall:

(1) Describe its intended best practices for container labeling and management, see the required standards at Section R315-262-206.

(2) Describe its intended best practices for providing training for laboratory workers and students commensurate with their duties, see the required standards at Subsection R315-262-207(a).

(3) Describe its intended best practices for providing training to ensure safe on-site transfers of unwanted material and hazardous waste by trained professionals, see the required standards at Subsection R315-262-207(d)(1).

(4) Describe its intended best practices for removing unwanted material from the laboratory, including:

(i) For regularly scheduled removals-Develop a regular schedule for identifying and removing unwanted materials from its laboratories, see the required standards at Subsections R315-262-208(a)(1) and (a)(2).

(ii) For removals when maximum volumes are exceeded:

(A) Describe its intended best practices for removing unwanted materials from the laboratory within 10 calendar days when unwanted materials have exceeded their maximum volumes, see the required standards at Subsection R315-262-208(d).

(B) Describe its intended best practices for communicating that unwanted materials have exceeded their maximum volumes.

(5) Describe its intended best practices for making hazardous waste determinations, including specifying the duties of the individuals involved in the process, see the required standards at Subsections R315-262-11(a) through (d) and Sections R315-262-209 through R315-262-212.

(6) Describe its intended best practices for laboratory clean-outs, if the eligible academic entity plans to use the incentives for laboratory clean-outs provided in Section R315-262-213, including:

(i) Procedures for conducting laboratory clean-outs, see the required standards at Subsections R315-262-213(a)(1) through (3); and

(ii) Procedures for documenting laboratory clean-outs, see the required standards at Subsection R315-262-213(a)(4).

(7) Describe its intended best practices for emergency prevention, including:

(i) Procedures for emergency prevention, notification, and response, appropriate to the hazards in the laboratory; and

(ii) A list of chemicals that the eligible academic entity has, or is likely to have, that become more dangerous when they exceed their expiration date and/or as they degrade; and

(iii) Procedures to safely dispose of chemicals that become more dangerous when they exceed their expiration date and/or as they degrade; and

(iv) Procedures for the timely characterization of unknown chemicals.

(c) An eligible academic entity shall make its Laboratory Management Plan available to laboratory workers, students, or any others at the eligible academic entity who request it.

(d) An eligible academic entity shall review and revise its Laboratory Management Plan, as needed.

R315-262-215. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Unwanted Material that Is Not Solid or Hazardous Waste.

(a) If an unwanted material does not meet the definition of solid waste in Section R315-261-2, it is no longer subject to Sections R315-262-200 through 216 or to Rules R315-260 through 266, 268, or 270.

(b) If an unwanted material does not meet the definition of hazardous waste in Section R315-261-3, it is no longer subject to Sections R315-262-200 through 216 or to Rules R315-260 through 266, 268, or 270, but shall be managed in compliance with any other applicable regulations and/or conditions.

R315-262-216. Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities -- Non-Laboratory Hazardous Waste Generated at an Eligible Academic Entity.

An eligible academic entity that generates hazardous waste outside of a laboratory is not eligible to manage that hazardous waste under Sections R315-262-200 through 216; and

(a) Remains subject to the generator requirements of Sections R315-262-11 and R315-262-15 for large quantity generators and small quantity generators, if the hazardous waste is managed in a satellite accumulation area, and all other applicable generator requirements of Rule R315-262, with respect to that hazardous waste; or

(b) Remains subject to the conditional exemption of Section R315-262-14 for very small quantity generators, with respect to that hazardous waste.

R315-262-230. Alternative Standards for Episodic Generation -- Applicability.

Sections R315-262-230 through 233 are applicable to very small quantity generators and small quantity generators as defined in Section R315-260-10.

R315-262-231. Alternative Standards for Episodic Generation -- Definitions for Sections R315-262-230 Through 233.

(a) "Episodic event" means an activity or activities, either planned or unplanned, that does not normally occur during generator operations, resulting in an increase in the generation of hazardous wastes that exceeds the calendar month quantity limits for the generator's usual category.

(b) "Planned episodic event" means an episodic event that the generator planned and prepared for, including regular maintenance, tank cleanouts, short-term projects, and removal of excess chemical inventory

(c) "Unplanned episodic event" means an episodic event that the generator did not plan or reasonably did not expect to occur, including production process upsets, product recalls, accidental spills, or "acts of nature," such as tornado, hurricane, or flood.

R315-262-232. Alternative Standards for Episodic Generation -- Conditions for a Generator Managing Hazardous Waste from an Episodic Event.

(a) Very small quantity generator. A very small quantity generator may maintain its existing generator category for hazardous waste generated during an episodic event if the generator complies with the following conditions:

(1) The very small quantity generator is limited to one episodic event per calendar year, unless a petition is granted under Section R315-262-233;

(2) Notification. The very small quantity generator shall notify the director no later than 30 calendar days before initiating a planned episodic event using EPA Form 8700-12. In the event of an unplanned episodic event, the generator shall notify the director within 72 hours of the unplanned event via phone, email, or fax and subsequently submit EPA Form 8700-12. The generator shall include the start date and end date of the episodic event, the reasons for the event, types and estimated quantities of hazardous waste expected to be generated as a result of the episodic event, and shall identify a facility contact and emergency coordinator with 24-hour telephone access to discuss the notification submittal or respond to an emergency in compliance with Subsection R315-262-16(b)(9)(i);

(3) EPA ID Number. The very small quantity generator shall have an EPA identification number or get an EPA identification number using EPA Form 8700-12;

(4) Accumulation. A very small quantity generator is prohibited from accumulating hazardous waste generated from an episodic event on drip pads and in containment buildings. When accumulating hazardous waste in containers and tanks the following conditions apply:

(i) Containers. A very small quantity generator accumulating in containers shall mark or label its containers with the following:

(A) The words "Episodic Hazardous Waste";

(B) An indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704; and

(C) The date when the episodic event began, clearly visible for inspection on each container.

(ii) Tanks. A very small quantity generator accumulating episodic hazardous waste in tanks shall do the following:

(A) Mark or label the tank with the words "Episodic Hazardous Waste";

(B) Mark or label its tanks with an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E,

labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704;

(C) Use inventory logs, monitoring equipment or other records to identify the date when each episodic event begins; and

(D) Keep inventory logs or records with the information required by Subsection R315-262-232(a)(4)(ii)(C) on site and readily available for inspection.

(iii) Hazardous waste shall be managed in a manner that minimizes the possibility of a fire, explosion, or release of hazardous waste or hazardous waste constituents to the air, soil, or water;

(A) Containers shall be in good condition and compatible with the hazardous waste being accumulated therein. Containers shall be kept closed except to add or remove waste; and

(B) Tanks shall be in good condition and compatible with the hazardous waste accumulated therein. Tanks shall have procedures in place to prevent the overflow, for example, be equipped with a means to stop inflow with systems such as a waste feed cutoff system or bypass system to a standby tank if hazardous waste is continuously fed into the tank. Tanks shall be inspected at least once each operating day to ensure any applicable discharge control equipment, such as waste feed cutoff systems, bypass systems, and drainage systems are in good working order and to ensure the tanks are operated according to their designs by reviewing the data gathered during the inspection from monitoring equipment such as pressure and temperature gauges.

(5) The very small quantity generator shall comply with the hazardous waste manifest requirements of Sections R315-262-20 through R315-262-27 and the recordkeeping provisions for small quantity generators in Section R315-262-44 when it sends its episodic event hazardous waste off site to a designated facility, as defined in Section R315-260-10.

(6) The very small quantity generator has up to 60 calendar days from the start of the episodic event to manifest and send its hazardous waste generated from the episodic event to a designated facility, as defined in Section R315-260-10.

(7) Very small quantity generators shall maintain the following records for three years from the end date of the episodic event:

(i) Beginning and end dates of the episodic event;

(ii) A description of the episodic event;

(iii) A description of the types and quantities of hazardous wastes generated during the event;

(iv) A description of how the hazardous waste was managed as well as the name of the designated facility that received the hazardous waste;

(v) Names of hazardous waste transporters; and

(vi) An approval letter from the director if the generator petitioned to conduct one additional episodic event per calendar year.

(b) Small quantity generators. A small quantity generator may maintain its existing generator category during an episodic event if the generator complies with the following conditions:

(1) The small quantity generator is limited to one episodic event per calendar year unless a petition is granted under Section R315-262-233;

(2) Notification. The small quantity generator shall notify the director no later than 30 calendar days before initiating a planned episodic event using EPA Form 8700-12. In the event of an unplanned episodic event, the small quantity generator shall notify the director within 72 hours of the unplanned event via phone, email, or fax, and subsequently submit EPA Form 8700-12. The small quantity generator shall include the start date and end date of the episodic event and the reasons for the event, types and estimated quantities of hazardous wastes expected to be generated as a result of the episodic event, and identify a facility contact and emergency coordinator with 24-hour telephone access to discuss the notification submittal or respond to emergency;

(3) EPA ID Number. The small quantity generator shall have an EPA identification number or get an EPA identification number using EPA Form 8700-12; and

(4) Accumulation by small quantity generators. A small quantity generator is prohibited from accumulating hazardous wastes generated from an episodic event waste on drip pads and in containment buildings. If accumulating hazardous waste generated from an episodic event in containers and tanks, the following conditions apply:

(i) Containers. A small quantity generator accumulating episodic hazardous waste in containers shall meet the standards at Subsection R315-262-16(b)(2) and shall mark or label its containers with the following:

(A) The words "Episodic Hazardous Waste";

(B) An indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704; and

(C) The date when the episodic event began, clearly visible for inspection on each container.

(ii) Tanks. A small quantity generator accumulating episodic hazardous waste in tanks shall meet the standards at Subsection R315-262-16(b)(3) and shall do the following:

(A) Mark or label its tank with the words "Episodic Hazardous Waste";

(B) Mark or label its tanks with an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704;

(C) Use inventory logs, monitoring equipment or other records to identify the date when each episodic event begins; and

(D) Keep inventory logs or records with the information required by Subsection R315-262-232(b)(4)(ii)(C) on site and available for inspection.

(5) The small quantity generator shall treat hazardous waste generated from an episodic event on site or manifest and ship the hazardous waste off site to a designated facility, as defined by Section R315-260-10, within 60 calendar days from the start of the episodic event.

(6) The small quantity generator shall maintain the following records for three years from the end date of the episodic event:

(i) Beginning and end dates of the episodic event;

(ii) A description of the episodic event;

(iii) A description of the types and quantities of hazardous wastes generated during the event;

(iv) A description of how the hazardous waste was managed as well as the name of the designated facility, as defined by Section R315-260-10, that received the hazardous waste;

(v) Names of hazardous waste transporters; and

(vi) An approval letter from the director if the generator petitioned to conduct one additional episodic event per calendar year.

R315-262-233 Alternative Standards for Episodic Generation -- Petition to Manage One Additional Episodic Event Per Calendar Year.

(a) A generator may petition the Director for a second episodic event in a calendar year without impacting its generator category under the following conditions:

(1) If a very small quantity generator or small quantity generator has already held a planned episodic event in a calendar year, the generator may petition the Director for an additional unplanned episodic event in that calendar year within 72 hours of the unplanned event.

(2) If a very small quantity generator or small quantity generator has already held an unplanned episodic event in a calendar year, the generator may petition the Director for an additional planned episodic event in that calendar year.

(b) The petition shall include the following:

(1) The reason(s) why an additional episodic event is needed and the nature of the episodic event;

(2) The estimated amount of hazardous waste to be managed from the event;

(3) How the hazardous waste is to be managed;

(4) The estimated length of time needed to complete management of the hazardous waste generated from the episodic event - not to exceed sixty (60) days; and

(5) Information regarding the previous episodic event managed by the generator, including the nature of the event, whether it was a planned or unplanned event, and how the generator complied with the conditions.

(c) The petition shall be made to the Director in writing, either on paper or electronically.

(d) The generator shall retain written approval in its records for three (3) years from the date the episodic event ended.

R315-262-250. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Applicability.

The regulations of Sections R315-262-250 through 265 apply to those areas of a large quantity generator where hazardous waste is generated or accumulated on site.

R315-262-251. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Maintenance and Operation of Facility.

A large quantity generator shall maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

R315-262-252. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Required Equipment.

All areas deemed applicable by Section R315-262-250 shall be equipped with the items in Subsections R315-262-252(a) through (d) (unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below or the actual hazardous waste generation or accumulation area does not lend itself for safety reasons to have a particular kind of equipment specified below). A large quantity generator may determine the most appropriate locations within its facility to locate equipment necessary to prepare for and respond to emergencies:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

R315-262-253. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Testing and Maintenance of Equipment.

All communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

R315-262-254. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Access to Communications or Alarm System.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access (e.g., direct or unimpeded access) to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under Section R315-262-252.

(b) In the event there is just one employee on the premises while the facility is operating, the employee shall have immediate access, e.g., direct or unimpeded access, to a device, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under Section R315-262-252.

R315-262-255. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Required Aisle Space.

The large quantity generator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

R315-262-256. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Arrangements with Local Authorities.

(a) The large quantity generator shall attempt to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the Local Emergency Planning Committee, if it is determined to be the appropriate organization with which to make arrangements.

(1) A large quantity generator attempting to make arrangements with its local fire department shall determine the potential need for the services of the local police department, other emergency response teams, emergency response contractors, equipment suppliers and local hospitals.

(2) As part of this coordination, the large quantity generator shall attempt to make arrangements, as necessary, to familiarize the above organizations with the layout of the facility, the properties of the hazardous waste handled at the facility and associated hazards, places where personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes as well as the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(3) Where more than one police or fire department might respond to an emergency, the large quantity generator shall attempt to make arrangements designating primary emergency authority to a specific fire or police department, and arrangements with any others to provide support to the primary emergency authority.

(b) The large quantity generator shall maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency. This documentation shall include documentation in the operating record that either confirms such arrangements actively exist or, in cases where no arrangements exist, confirms that attempts to make such arrangements were made.

(c) A facility possessing 24-hour response capabilities may seek a waiver from the State Fire Marshal or locality as far as needing to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, provided that the waiver is documented in the operating record.

R315-262-260. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Purpose and Implementation of Contingency Plan.

(a) A large quantity generator shall have a contingency plan for the facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

R315-262-261. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Content of Contingency Plan.

(a) The contingency plan shall describe the actions facility personnel shall take to comply with Sections R315-262-260 and 265 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the generator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with some other emergency or contingency plan, it need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the standards of Rule R315-262. The generator may develop one contingency plan that meets all regulatory standards. The plan should be based on the National Response Team's Integrated Contingency Plan Guidance, "One Plan."

(c) The plan shall describe arrangements agreed to with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, local hospitals or, if applicable, the Local Emergency Planning Committee, pursuant to Section R315-262-256.

(d) The plan shall list names and emergency telephone numbers of all persons qualified to act as emergency coordinator (see Section R315-262-264), and this list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates. In situations where the generator facility has an emergency coordinator continuously on duty because it operates 24 hours per day, every day of the year, the plan may list the staffed position, e.g., operations manager, shift coordinator, shift operations supervisor, as well as an emergency telephone number that can be guaranteed to be answered at all times.

(e) The plan shall include a list of all emergency equipment at the facility, such as fire extinguishing systems, spill control equipment, communications and alarm systems, internal and external, and decontamination equipment, where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan shall include an evacuation plan for generator personnel where there is a possibility that evacuation could be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by releases of hazardous waste or fires.

R315-262-262. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Copies of Contingency Plan.

A copy of the contingency plan and all revisions to the plan shall be maintained at the large quantity generator and:

(a) The large quantity generator shall submit a copy of the contingency plan and all revisions to all local emergency responders (i.e., police departments, fire departments, hospitals and State and local emergency response teams that may be called upon to provide emergency services). This document may also be submitted to the Local Emergency Planning Committee, as appropriate.

(b) A large quantity generator that first becomes subject to these provisions after May 30, 2017 or a large quantity generator that is otherwise amending its contingency plan shall at that time submit a quick reference guide of the contingency plan to the local emergency responders identified at Subsection R315-262-262(a) or, as appropriate, the Local Emergency Planning Committee. The quick reference guide shall include the following elements:

(1) The types/names of hazardous wastes in layman's terms and the associated hazard associated with each hazardous waste present at any one time, e.g., toxic paint wastes, spent ignitable solvent, corrosive acid;

(2) The estimated maximum amount of each hazardous waste that may be present at any one time;

(3) The identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff;

(4) A map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes;

(5) A street map of the facility in relation to surrounding businesses, schools and residential areas to understand how best to get to the facility and also evacuate citizens and workers;

(6) The locations of water supply, e.g., fire hydrant and its flow rate;

(7) The identification of on-site notification systems, e.g., a fire alarm that rings off site, smoke alarms; and

(8) The name of the emergency coordinator(s) and 7/24-hour emergency telephone number(s) or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator.

(c) Generators shall update, if necessary, their quick reference guides, whenever the contingency plan is amended and submit these documents to the local emergency responders identified at Subsection R315-262-262(a) or, as appropriate, the Local Emergency Planning Committee.

R315-262-263. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Amendment of Contingency Plan.

The contingency plan shall be reviewed, and immediately amended, if necessary, whenever:

(a) Applicable regulations are revised;

(b) The plan fails in an emergency;

(c) The generator facility changes--in its design, construction, operation, maintenance, or other circumstances--in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

R315-262-264. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Emergency Coordinator.

At all times, there shall be at least one employee either on the generator's premises or on call, i.e., available to respond to an

emergency by reaching the facility within a short period of time, with the responsibility for coordinating all emergency response measures and implementing the necessary emergency procedures outlined in Section R315-262-265. Although responsibilities may vary depending on factors such as type and variety of hazardous waste(s) handled by the facility, as well as type and complexity of the facility, this emergency coordinator shall be thoroughly familiar with all aspects of the generator's contingency plan, all operations and activities at the facility, the location and characteristics of hazardous waste handled, the location of all records within the facility, and the facility's layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

R315-262-265. Preparedness, Prevention, and Emergency Procedures for Large Quantity Generators -- Emergency Procedures.

(a) When there is an imminent or actual emergency situation, the emergency coordinator, or designee when the emergency coordinator is on call, shall immediately:

(1) activate internal facility alarms or communication systems, if applicable, to notify facility personnel; and

(2) notify appropriate state or local agencies with designated response roles if their help is needed.

(b) When there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of the facility records or manifests and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, for example, the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions.

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health, or the environment, outside the facility, the emergency coordinator shall report the findings as follows:

(1) If the assessment shows that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated; and

(2) The emergency coordinator shall immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center, using their 24-hour toll free number 800-424-8802, and the Division of Waste Management and Radiation Control at 801-536-0200 or after hours at 801-536-4123. The report shall include:

(i) Name and telephone number of reporter;

(ii) Name and address of the generator;

(iii) Time and type of incident, for example, release, fire);

(iv) Name and quantity of materials involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator shall take any reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the generator's facility. These measures shall include, if applicable, stopping processes and operations, collecting and containing released hazardous waste, and removing or isolating containers.

(f) If the generator stops operations in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the generator can demonstrate, in accordance with Subsection R315-261-3(c) or R315-261-3(d), that the recovered material is not a hazardous waste, then it is a newly generated hazardous waste that shall be managed in accordance with the applicable requirements and conditions for exemption in Rules R315-262, R315-263, and R315-265.

(h) The emergency coordinator shall ensure that, in the affected areas of the facility:

(1) no hazardous waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are finished; and

(2) the emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The generator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the generator shall submit a written report on the incident to the director. The report shall include:

(1) Name, address, and telephone number of the generator;

(2) Date, time, and type of incident, for example, fire or explosion;

(3) Name and quantity of materials involved;

(4) The extent of injuries, if any;

(5) An assessment of actual or potential hazards to human health or the environment, if this applies; and

(6) Estimated quantity and disposition of recovered material that resulted from the incident.

KEY: hazardous waste, generators
Date of Last Change: January 13, 2025

Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-263**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-263. Standards Applicable to Transporters of Hazardous Waste and Standards Applicable to Emergency Control of Spills for Any Hazardous Waste Handlers	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments have been received since the last five-year review of this rule.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
Rule R315-263 establishes standards which apply to persons transporting hazardous waste within Utah if the transportation requires a manifest under Rule R315-262. These standards are required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous waste program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-263. Standards Applicable to Transporters of Hazardous Waste and Standards Applicable to Emergency Control of

Spills for Any Hazardous Waste Handlers.

R315-263-10. Scope.

(a) Sections R315-263-11, 12, 20, 21, 22, 25, and 34 establish standards which apply to persons transporting hazardous waste within Utah if the transportation requires a manifest under Rule R315-262.

(b) Sections R315-263-11, 12, 20, 21, 22, 25, and 34 do not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities.

(c) A transporter of hazardous waste shall also comply with Rule R315-262 if he:

(1) Transports hazardous waste into Utah; or

(2) Mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container.

(d) A transporter of hazardous waste that is being imported from or exported to any other country for purposes of recovery or disposal is subject to Sections R315-263-10 through 263-12 and to all other relevant requirements of Sections R315-262-80 through 262-84, including, but not limited to, Subsections R315-262-83(d) and 262-84(d) for movement documents.

(e) Reserved

(f) Reserved

(g) Sections R315-263-30, 31, 32, and 33 apply to all handlers of hazardous waste or material that when spilled may become a hazardous waste.

R315-263-11. EPA Identification Number.

(a) A transporter shall not transport hazardous wastes without having received an EPA identification number from the Director.

(b) A transporter who has not received an EPA identification number may obtain one by applying to the Director using EPA Form 8700-12. Upon receiving the request, the Director shall assign an EPA identification number to the transporter.

R315-263-12. Transfer Facility Requirements.

(a) A transporter who stores manifested shipments of hazardous waste in containers meeting the independent requirements of Section R315-262-30 at a transfer facility for a period of ten (10) days or less is not subject to regulation under Rules R315-264, 265, 268, and 270 with respect to the storage of those wastes.

(b) When consolidating the contents of two or more containers with the same hazardous waste into a new container, or when combining and consolidating two different hazardous wastes that are compatible with each other, the transporter must mark its containers of 119 gallons or less with the following information:

(1) The words "Hazardous Waste" and

(2) The applicable EPA hazardous waste number(s), EPA hazardous waste codes, in Sections R315-261-20 through 24 and 30 through 35, or in compliance with Section R315-262-32(c).

R315-263-20. The Manifest System.

(a)(1) Manifest requirement. A transporter may not accept hazardous waste from a generator unless the transporter is also provided with a manifest form; EPA Form 8700-22, and if necessary, EPA Form 8700-22A; signed in accordance with the requirement of Section R315-262-23, or is provided with an electronic manifest that is gotten, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and signed with a valid and enforceable electronic signature as described in 40 CFR 262.25.

(2) Exports. For exports of hazardous waste subject to the requirements of Sections R315-262-80 through R315-262-84, a transporter may not accept hazardous waste without a manifest signed by the generator in accordance with Section R315-263-20, as appropriate, and for exports occurring under the terms of consent issued by EPA on or after December 31, 2016, a movement document that includes the information require by Subsection R315-262-83(d).

(3) Compliance date for form revisions. The revised manifest form and procedures in Sections R315-260-10, R315-261-7, R315-263-20, and R315-263-21, had an effective date of September 5, 2006.

(4) Use of electronic manifest legal equivalence to paper forms for participating transporters. Electronic manifests that are gotten, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with Section R315-263-20 in lieu of EPA Forms 8700-22 and 8700-22A, are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy any requirement in Title R315 to get, complete, sign, carry, provide, give, use, or keep a manifest.

(i) Any requirement in Title R315 to sign a manifest or manifest certification by hand, or to get a handwritten signature, is satisfied by signing with or getting a valid and enforceable electronic signature within the meaning of 40 CFR 262.25.

(ii) Any requirement in Title R315 to give, provide, send, forward, or return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person by submission to the system.

(iii) Any requirement in Title R315 for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person who is scheduled to receive delivery of the waste shipment, except that to the extent that the Hazardous Materials regulation on shipping papers for carriage by public highway requires transporters of hazardous materials to carry a paper document to comply with 49 CFR 177.817, a hazardous waste transporter shall carry one printed copy of the electronic manifest on the transport vehicle.

(iv) Any requirement in Title R315 for a transporter to keep a copy of a manifest is satisfied by the retention of an electronic manifest in the transporter's account on the e-Manifest system, if the copies are readily available for viewing and production if requested by any EPA or Utah inspector.

(v) No transporter may be held liable for the inability to produce an electronic manifest for inspection under Section R315-

263-20 if that transporter can demonstrate that the inability to produce the electronic manifest is exclusively due to a technical difficulty with the EPA system for which the transporter bears no responsibility.

(5) A transporter may participate in the electronic manifest system either by accessing the electronic manifest system from the transporter's own electronic equipment, or by accessing the electronic manifest system from the equipment provided by a participating generator, by another transporter, or by a designated facility.

(6) Special procedures if electronic manifest is not available. If after a manifest has been originated electronically and signed electronically by the initial transporter, and the electronic manifest system should become unavailable for any reason, then:

(i) The transporter in possession of the hazardous waste when the electronic manifest becomes unavailable shall reproduce sufficient copies of the printed manifest that is carried on the transport vehicle pursuant to Subsection R315-263-20(a)(4)(iii)(A), or get and complete another paper manifest for this purpose. The transporter shall reproduce sufficient copies to provide the transporter and each subsequent waste handler with a copy for their files, plus two additional copies that will be delivered to the designated facility with the hazardous waste.

(ii) On each printed copy, the transporter shall include a notation in the Special Handling and Additional Description space, Item 14, that the paper manifest is a replacement manifest for a manifest originated in the electronic manifest system, shall include, if not pre-printed on the replacement manifest, the manifest tracking number of the electronic manifest that is replaced by the paper manifest, and shall also include a brief explanation why the electronic manifest was not available for completing the tracking of the shipment electronically.

(iii) A transporter signing a replacement manifest to acknowledge receipt of the hazardous waste shall ensure that each paper copy is individually signed and that a legible handwritten signature appears on each copy.

(iv) From the point that the electronic manifest is no longer available for tracking the waste shipment, the paper replacement manifest copies shall be carried, signed, kept as records, and given to a subsequent transporter or to the designated facility, following the instructions, procedures, and requirements that apply to the use of paper manifests.

(7) Special procedures for electronic signature methods undergoing tests. If a transporter using an electronic manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the transporter shall sign the electronic manifest electronically and also sign with an ink signature the transporter acknowledgement of receipt of materials on the printed copy of the manifest that is carried on the vehicle in accordance with Subsection R315-263-20(a)(4)(iii)(A). This printed copy bearing the generator's and transporter's ink signatures shall also be presented by the transporter to the designated facility to sign in ink to indicate the receipt of the waste materials or to indicate discrepancies. After the owner or operator of the designated facility has signed this printed manifest copy with its ink signature, the printed manifest copy shall be delivered to the designated facility with the waste materials.

(8) Reserved.

(9) Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person, such as the waste handler, named on the manifest. Transporters may participate electronically in the post-receipt data corrections process by following the process described in Subsection R315-264-71(l), which applies to corrections made to either paper or electronic manifest records.

(b) Before transporting the hazardous waste, the transporter shall sign and date the manifest acknowledging acceptance of the hazardous waste from the generator. The transporter shall return a signed copy to the generator before leaving the generator's property.

(c) The transporter shall ensure that the manifest accompanies the hazardous waste. In the case of exports occurring under the terms of a consent issued by EPA to the exporter on or after December 31, 2016, the transporter shall ensure that a movement document that includes the information required by Subsection R315-262-83(d) also accompanies the hazardous waste. In the case of imports occurring under the terms of a consent issued by EPA to the country of export or the importer on or after December 31, 2016, the transporter shall ensure that a movement document that includes the information required by Subsection R315-262-84(d) also accompanies the hazardous waste.

(d) A transporter who delivers a hazardous waste to another transporter or to the designated facility shall:

(1) get the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest; and

(2) keep one copy of the manifest in accordance with Section R315-263-22; and

(3) give the remaining copies of the manifest to the accepting transporter or designated facility.

(e) The requirements of Subsections R315-263-20(c), (d) and (f) do not apply to water, bulk shipment, transporters if:

(1) the hazardous waste is delivered by water, bulk shipment, to the designated facility; and

(2) a shipping paper containing the information required on the manifest; excluding the EPA identification numbers, generator certification, and signatures; and, for exports or imports occurring under the terms of a consent issued by EPA on or after December 31, 2016, a movement document that includes the information required by Subsection R315-262-83(d) or R315-262-84(d) accompanies the hazardous waste; and

(3) the delivering transporter gets the date of delivery and handwritten signature of the owner or operator of the designated facility on either the manifest or the shipping paper; and

(4) the person delivering the hazardous waste to the initial water, bulk shipment, transporter gets the date of delivery and signature of the water, bulk shipment, transporter on the manifest and forwards it to the designated facility; and

(5) a copy of the shipping paper or manifest is kept by each water, bulk shipment, transporter in accordance with Section R315-263-22.

(f) For shipments involving rail transportation, the requirements of Subsections R315-263-20(c), (d) and (e) do not apply and the following requirements do apply:

(1) When accepting hazardous waste from a non-rail transporter, the initial rail transporter shall:

(i) sign and date the manifest acknowledging acceptance of the hazardous waste;

(ii) return a signed copy of the manifest to the non-rail transporter;

(iii) forward at least three copies of the manifest to:

(A) the next non-rail transporter, if any; or

(B) the designated facility, if the shipment is delivered to that facility by rail; or

(C) the last rail transporter designated to handle the waste in the United States; and

(iv) keep one copy of the manifest and rail shipping paper in accordance with Section R315-263-22.

(2) Rail transporters shall ensure that a shipping paper containing the information required on the manifest; excluding the EPA identification numbers, generator certification, and signatures; and, for exports or imports occurring under the terms of a consent issued by EPA on or after December 31, 2016, a movement document that includes the information required by Subsection R315-262-83(d) or R315-262-84(d) always accompanies the hazardous waste.

Note to Subsection R315-263-20(f)(2): Intermediate rail transporters are not required to sign the manifest, movement document, or shipping paper.

(3) When delivering hazardous waste to the designated facility, a rail transporter shall:

(i) get the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper, if the manifest has not been received by the facility; and

(ii) keep a copy of the manifest or signed shipping paper in accordance with Section R315-263-22.

(4) When delivering hazardous waste to a non-rail transporter a rail transporter shall:

(i) get the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and

(ii) keep a copy of the manifest in accordance with Section R315-263-22.

(5) Before accepting hazardous waste from a rail transporter, a non-rail transporter shall sign and date the manifest and provide a copy to the rail transporter.

(g) Transporters who transport hazardous waste out of the United States shall:

(1) sign and date the manifest in the International Shipments block to indicate the date that the shipment left the United States;

(2) keep one copy in accordance with Subsection R315-263-22(d);

(3) return a signed copy of the manifest to the generator; and

(4) for paper manifest only,

(i) send a copy of the manifest to the e-Manifest system in accordance with the allowable methods specified in Subsection R315-264-71(a)(2)(v); and

(ii) for shipments initiated before the AES filing compliance date, when instructed by the exporter to do so, give a copy of the manifest to a U.S. Customs official at the point of departure from the United States.

(h) A transporter transporting hazardous waste from a generator who generates greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month need not comply with the requirements of Section 315-263-20 or those of Section R315-263-22 if:

(1) the waste is being transported pursuant to a reclamation agreement as provided for in Subsection R315-262-20(e);

(2) the transporter records, on a log or shipping paper, the following information for each shipment:

(i) the name, address, and U.S. EPA Identification Number of the generator of the waste;

(ii) the quantity of waste accepted;

(iii) any DOT required shipping information; and

(iv) the date the waste is accepted;

(3) the transporter carries this record when transporting waste to the reclamation facility; and

(4) the transporter keeps these records for a period of at least three years after termination or expiration of the agreement.

R315-263-21. Compliance with the Manifest.

(a) Except as provided in Subsection R315-263-21(b), the transporter shall deliver the entire quantity of hazardous waste which the transporter has accepted from a generator or a transporter to:

(1) the designated facility listed on the manifest; or

(2) the alternate designated facility, if the hazardous waste cannot be delivered to the designated facility because an emergency prevents delivery; or

(3) the next designated transporter; or

(4) the place outside the United States designated by the generator.

(b)(1) Emergency Condition. If the hazardous waste cannot be delivered in accordance with Subsection R315-263-21(a)(1), R315-263-21(a)(2) or R315-263-21(a)(4) because of an emergency condition other than rejection of the waste by the designated facility or alternate designated facility, then the transporter shall contact the generator for further instructions and shall revise the manifest according to the generator's instructions.

(2) Transporters without agency authority. If the hazardous waste is not delivered to the next designated transporter in accordance with Subsection R315-263-21(a)(3), and the current transporter is without contractual authorization from the generator to act as the generator's agent with respect to transporter additions or substitutions, then the current transporter shall contact the generator

for further instructions before making any revisions to the transporter designations on the manifest. The current transporter may thereafter make these types of revisions if:

(i) the hazardous waste is not delivered in accordance with Subsection R315-263-21(a)(3) because of an emergency condition; or

(ii) the current transporter proposes to change the transporters designated on the manifest by the generator, or to add a new transporter during transportation, to respond to an emergency, or for purposes of transportation efficiency, convenience, or safety; and

(iii) the generator authorizes the revision.

(3) Transporters with agency authority. If the hazardous waste is not delivered to the next designated transporter in accordance with Subsection R315-263-21(a)(3), and the current transporter has authorization from the generator to act as the generator's agent, then the current transporter may change the transporter or transporters designated on the manifest, or add a new transporter, during transportation without the generator's earlier, explicit approval, if:

(i) the current transporter is authorized by a contractual provision that provides explicit agency authority for the transporter to make transporter changes on behalf of the generator;

(ii) the transporter enters in Item 14 of each manifest for which this type of change is made, the following statement of its agency authority: "Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf;" and

(iii) the change in designated transporters is necessary to respond to an emergency, or for purposes of transportation efficiency, convenience, or safety.

(4) Generator liability. The grant by a generator of authority to a transporter to act as the agent of the generator with respect to changes to transporter designations under Subsection R315-263-21(b)(3) does not affect the generator's liability or responsibility for complying with any applicable requirement under Rules R315-260 through R315-266, R315-268, R315-270 and R315-273, or grant any additional authority to the transporter to act on behalf of the generator.

(c) If hazardous waste is rejected by the designated facility while the transporter is on the facility's premises, then the transporter shall obtain the following:

(1) For a partial load rejection or for regulated quantities of container residues, a copy of the original manifest that includes the facility's date and signature, and the Manifest Tracking Number of the new manifest that shall accompany the shipment, and a description of the partial rejection or container residue in the discrepancy block of the original manifest. The transporter shall retain a copy of this manifest in accordance with Section R315-263-22 and give the remaining copies of the original manifest to the rejecting designated facility. If the transporter is forwarding the rejected part of the shipment or a regulated container residue to an alternate facility or returning it to the generator, the transporter shall obtain a new manifest to accompany the shipment, and the new manifest shall include the information required in Subsections R315-264-72(e)(1) through R315-264-72(e)(6) or R315-264-72(f)(1) through R315-264-72(f)(6) or Subsections R315-265-72(e)(1) through R315-265-72(e)(6) or R315-265-72(f)(1) through R315-265-72(f)(6).

(2) For a full load rejection that will be taken back by the transporter, a copy of the original manifest that includes the rejecting facility's signature and date attesting to the rejection, the description of the rejection in the discrepancy block of the manifest, and the name, address, phone number, and Identification Number for the alternate facility or generator to whom the shipment shall be delivered. The transporter shall retain a copy of the manifest in accordance with Section R315-263-22 and give a copy of the manifest containing this information to the rejecting designated facility. If the original manifest is not used, then the transporter shall obtain a new manifest for the shipment and comply with Subsection R315-264-72(e)(1) through R315-264-72(e)(6) or R315-265-72(e)(1) through R315-265-72(e)(6).

R315-263-22. Recordkeeping.

(a) A transporter of hazardous waste shall keep a copy of the manifest signed by the generator, himself, and the next designated transporter or the owner or operator of the designated facility for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(b) For shipments delivered to the designated facility by water, bulk shipment, each water, bulk shipment, transporter shall retain a copy of the shipping paper containing all the information required in Subsection R315-263-20(e)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(c) For shipments of hazardous waste by rail within the United States:

(1) The initial rail transporter shall keep a copy of the manifest and shipping paper with all the information required in Subsection R315-263-20(f)(2) for a period of three years from the date the hazardous waste was accepted by the initial transporter; and

(2) The final rail transporter shall keep a copy of the signed manifest, or the shipping paper if signed by the designated facility in lieu of the manifest, for a period of three years from the date the hazardous waste was accepted by the initial transporter.

Note: Intermediate rail transporters are not required to keep records pursuant to these regulations.

(d) A transporter who transports hazardous waste out of the United States shall keep a copy of the manifest indicating that the hazardous waste left the United States for a period of three years from the date the hazardous waste was accepted by the initial transporter.

(e) The periods of retention referred to in Section R315-263-22 are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director.

R315-263-25. Electronic Manifest Signatures.

Electronic manifest signatures shall meet the criteria described in 40 CFR 262.25.

R315-263-30. Immediate Action.

In the event of a spill of hazardous waste or material which, when spilled, becomes hazardous waste, the person responsible for the material at the time of the spill shall immediately:

(a) Take appropriate action to minimize the threat to human health and the environment.

(b) Notify the Utah State Department of Environmental Quality, 24-hour Answering Service, 801-536- 4123 if the following spill quantities are exceeded:

(1) One kilogram (2.2 pounds) of material listed in R315-261-31, and which is an acute hazardous waste identified with a hazard code of (H), or an acute hazardous Waste identified in R315-261-33(e). Notify for a spill of a lesser quantity if there is a potential threat to human health or the environment; or

(2) One hundred kilograms (220 pounds) of hazardous waste or material which, when spilled, becomes hazardous waste, other than a spill of wastes identified in Subsection R315-263-30(a)(1). Notify for a spill of a lesser quantity if there is a potential threat to human health or the environment.

(c) Provide the following information when reporting the spill:

(1) Name, phone number, and address of person responsible for the spill.

(2) Name, title, and phone number of individual reporting.

(3) Time and date of spill.

(4) Location of spill -- as specific as possible including nearest town, city, highway or waterway.

(5) Description contained on the manifest and the amount of material spilled.

(6) Cause of spill.

(7) Emergency action taken to minimize the threat to human health and the environment.

(d) An air, rail, highway, or water transporter who has discharged hazardous waste shall:

(1) Give notice, if required by 49 CFR 171.15 to the National Response Center, 800-424-8802 or 202- 426-2675; and

(2) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, D.C. 20590.

(e) A water, bulk shipment, transporter who has discharged hazardous waste shall give the same notice as required by 33 CFR 153.203 for oil and hazardous substances.

R315-263-31. Spill Clean-up.

The person responsible for the material at the time of the spill shall clean up all the spilled material and any residue or contaminated media or other material resulting from the spill or take action as may be required by the Director so that the spilled material, residue, or contaminated media no longer presents a hazard to human health or the environment as defined in Rule R315-101. The cleanup or other required actions shall be at the expense of the person responsible for the spill. If the person responsible for the spill fails to take the required action, the Department may take action and bill the responsible person.

R315-263-32. Emergency Control Variance.

If a spill of hazardous waste requires immediate removal to protect human health or the environment, as determined by the Director, a variance may be granted by the Director to the manifest and recordkeeping requirements of these rules until the spilled material and any residue or contaminated soil, water or other material resulting from the spill no longer presents an immediate hazard to human health or the environment, as determined by the Director.

R315-263-33. Reporting.

Within 15 days after any spill of hazardous waste or material which, when spilled, becomes hazardous waste, and is reported under Subsection R315-263-30(b), the person responsible for the material at the time of the spill shall submit to the Director a written report which contains the following information:

(a) The person's name, address, and telephone number;

(b) Date, time, location, and nature of the incident;

(c) Name and quantity of material(s) involved;

(d) The extent of injuries, if any;

(e) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(f) The estimated quantity and disposition of recovered material that resulted from the incident.

R315-263-34. Compliance with Department of Transportation Regulations.

Transporters of hazardous waste shall comply with the following pertinent regulations of the U.S. Department of Transportation governing the transportation of hazardous materials for both interstate and intrastate shipments:

(a) 49 CFR 171, General Information Regulations and Definitions;

(b) 49 CFR 172, Hazardous Materials Table and Hazardous Material Communications Regulations;

(c) 49 CFR 173, Shippers -- General Requirements for Shipments and Packaging;

(d) 49 CFR 174, Carriage by Rail;

(e) 49 CFR 175, Carriage by Aircraft;

(f) 49 CFR 176, Carriage by Vessel;

(g) 49 CFR 177, Carriage by Public Highway;

(h) 49 CFR 178, Shipping Container Specification; and

(i) 49 CFR 179, Specifications for Tank Cars.

KEY: hazardous waste
Date of Last Change: January 17, 2023
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-264**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-264. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments have been received since the last five-year review of this rule.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
Rule R315-264 establishes the minimum standards that define the acceptable management of hazardous waste that apply to each owner and operator of facilities that treat, store, or dispose of hazardous waste. These standards are required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.

Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-264. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.

R315-264-1. General -- Purpose, Scope and Applicability.

(a) The purpose of Rule R315-264 is to establish minimum standards that define the acceptable management of hazardous waste.

(b) The standards in Rule R315-264 apply to each owner and operator of facilities that treat, store, or dispose of hazardous waste, except as specifically provided otherwise in Rule R315-264 or R315-261.

(c) Reserved.

(d) The requirements of Rule R315-264 apply to a person disposing of hazardous waste by underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the extent they are required by 40 CFR 144.14. Rule R315-264 applies to the aboveground treatment or storage of hazardous waste before it is injected underground.

(e) The requirements of Rule R315-264 apply to each owner or operator of a POTW that treats, stores, or disposes of hazardous waste only to the extent they are included in a RCRA permit by rule granted to such a person under Rule R315-270.

(f) Reserved.

(g) The requirements of Rule R315-264 do not apply to the Subsections R315-264-1(g)(1) through R315-264-1(g)(13):

(1) The owner or operator of a facility permitted under Rules R315-301 through R315-320 to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under Rule R315-264 by Section R315-262-14.

(2) The owner or operator of a facility managing recyclable materials described in Subsections R315-261-6(a)(2), R315-261-6(a)(3), and R315-261-6(a)(4), except to the extent they are referred to in Rule R315-15 or Sections R315-266-20 through R315-266-23, R315-266-70, R315-266-80, or R315-266-100 through R315-266-112.

(3) A generator accumulating waste on site in compliance with Sections R315-262-14, R315-262-15, R315-262-16, or R315-262-17 or Sections R315-262-200 through R315-262-216 or Sections R315-262-230 through R315-262-233.

(4) A farmer disposing of waste pesticides from the farmer's own use in compliance with Section R315-262-70.

(5) The owner or operator of a totally enclosed treatment facility, as defined in Section R315-260-10.

(6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in Section R315-260-10, shall comply with the requirements set out in Subsection R315-264-17(b) if the owner or operator is diluting hazardous ignitable (D001) wastes, other than the D001 High TOC Subcategory defined in Section R315-268-40, or reactive (D003) waste, to remove the characteristic before land disposal.

(7) Reserved.

(8)(i) Except as provided in Subsection R315-264-1(g)(8)(ii), a person engaged in treatment or containment activities during immediate response to any of the situations in Subsections R315-264-1(g)(8)(i) through R315-264-1(g)(8)(iv):

(A) a discharge of a hazardous waste;

(B) an imminent and substantial threat of a discharge of hazardous waste; or

(C) a discharge of a material that, if discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by Rule R315-264 shall comply with the applicable requirements of Sections R315-264-30 through R315-264-35, R315-264-37, and R315-264-50 through R315-264-56.

(iii) Any person who is covered by Subsection R315-264-1(g)(8)(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to the applicable requirements of Rule R315-264 and 40 CFR 122 and 123 and Rule R315-124 for those activities.

(iv) In the case of an explosives or munitions emergency response, if a federal, state, tribal or local official acting within the scope of their official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall keep records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(9) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.

(10) The addition of absorbent material to waste in a container, as defined in Section R315-260-10, or the addition of waste to absorbent material in a container, if these actions occur when waste is first placed in the container, and Subsection R315-264-17(b) and Sections R315-264-171 and R315-264-172 are complied with.

(11) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, handling the wastes listed in Subsections R315-264-1(g)(11)(i) through R315-264-1(g)(11)(vi). These handlers are subject to regulation under Rule R315-273, if handling the universal wastes listed in Subsections R315-264-1(g)(11)(i) through R315-264-1(g)(11)(vi):

(i) batteries as described in Section R315-273-2;

(ii) pesticides as described in Section R315-273-3;

(iii) mercury containing equipment as described in Section R315-273-4;

(iv) lamps as described in Section R315-273-5;

(v) aerosol cans as described in Section R315-272-6; and

(vi) antifreeze as described in Section R315-273-7.

(12) Reserved.

(13) Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous

waste pharmaceuticals, as defined in Section R315-266-500. Reverse distributors are subject to regulation under Sections R315-266-500 through R315-266-510 in lieu of Rule R315-264 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

(h) The requirements of Rule R315-264 apply to each owner or operator of facilities that treat, store, or dispose of hazardous wastes referred to in Rule R315-268.

(i) Reserved.

(j) The requirements of Sections R315-264-10 through R315-264-19, R315-264-30 through R315-264-37, R315-264-50 through R315-264-56, and R315-264-101 do not apply to remediation waste management sites. However, remediation waste management sites may be a part of a facility that is subject to a traditional hazardous waste permit because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes. In these cases, Sections R315-264-10 through R315-264-19, R315-264-30 through R315-264-37, R315-264-50 through R315-264-56, and R315-264-101 do apply to the facility subject to the traditional hazardous waste permit. Instead of the requirements of Sections R315-264-10 through R315-264-19, R315-264-30 through R315-264-37, and R315-264-50 through R315-264-56, owners or operators of remediation waste management sites shall comply with Subsections R315-264-1(j)(1) through R315-264-1(j)(13):

(1) Get an EPA identification number by applying to the director using EPA Form 8700-12.

(2) Get a detailed chemical and physical analysis of a representative sample of the hazardous remediation wastes to be managed at the site. At a minimum, the analysis shall contain the information that shall be known to treat, store or dispose of the waste according to Rules R315-264 and R315-268, and shall be kept accurate and up to date.

(3) Prevent people who are unaware of the danger from entering, and minimize the possibility for unauthorized people or livestock to enter onto the active portion of the remediation waste management site, unless the owner or operator can demonstrate to the director that:

(i) physical contact with the waste, structures, or equipment within the active portion of the remediation waste management site may not injure people or livestock who may enter the active portion of the remediation waste management site; and

(ii) disturbance of the waste or equipment by people or livestock who enter onto the active portion of the remediation waste management site, may not cause a violation of the requirements of Rule R315-264.

(4) Inspect the remediation waste management site for malfunctions, deterioration, operator errors, and discharges that may be causing, or may lead to, a release of hazardous waste constituents to the environment, or a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment and shall remedy the problem before it leads to a human health or environmental hazard. If a hazard is imminent or has already occurred, the owner or operator shall take remedial action immediately.

(5) Provide personnel with classroom or on-the-job training on how to perform their duties in a way that ensures the remediation waste management site complies with the requirements of Rule R315-264, and on how to respond effectively to emergencies.

(6) Take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and prevent threats to human health and the environment from ignitable, reactive and incompatible waste.

(7) For remediation waste management sites subject to regulation under Sections R315-264-170 through R315-264-179, R315-264-190 through R315-264-200, R315-264-220 through R315-264-232, R315-264-250 through R315-264-259, R315-264-270 through R315-264-283, R315-264-300 through R315-264-317, R315-264-340 through R315-264-351, and R315-264-600 through R315-264-603, the owner or operator shall design, construct, operate, and maintain a unit within a 100-year floodplain to prevent washout of any hazardous waste by a 100-year flood, unless the owner or operator can meet the demonstration of Subsection R315-264-18(b).

(8) Not place any non-containerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave.

(9) Develop and maintain a construction quality assurance program for each surface impoundment, waste pile and landfill unit that are required to comply with Subsections R315-264-221(c) and R315-264-221(d), R315-264-251(c) and R315-264-251(d), and R315-264-301(c) and R315-264-301(d) at the remediation waste management site, according to the requirements of Section R315-264-19.

(10) Develop and maintain procedures to prevent accidents and a contingency and emergency plan to control accidents that occur. These procedures shall address proper design, construction, maintenance, and operation of remediation waste management units at the site. The goal of the plan shall be to minimize the possibility of, and the hazards from a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. The plan shall explain specifically how to treat, store and dispose of the hazardous remediation waste in question, and shall be implemented immediately if a fire, explosion, or release of hazardous waste or hazardous waste constituents could threaten human health or the environment.

(11) Designate at least one employee, either on the facility premises or on call, that is, available to respond to an emergency by reaching the facility quickly, to coordinate emergency response measures. This emergency coordinator shall be thoroughly familiar with the facility's contingency plan, operations and activities at the facility, the location and characteristics of waste handled, the location of the records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

(12) Develop, maintain, and implement a plan to meet the requirements in Subsections R315-264-1(j)(2) through R315-264-1(j)(6) and R315-264-1(j)(9) through R315-264-1(j)(10).

(13) Maintain records documenting compliance with Subsections R315-264-1(j)(1) through R315-264-1(j)(12).

R315-264-3. Relationship to Interim Status Standards.

A facility owner or operator who has fully complied with the requirements for interim status-as defined in section 3005(e) of RCRA and regulations under Section R315-270-70-shall comply with the regulations specified in Rule 265 in lieu of the regulations in Rule R315-264, until final administrative disposition of his permit application is made, except as provided under Sections R315-264-550 through 555.

R315-264-4. Imminent Hazard Action.

Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to Section 19-5-115.

R315-264-10. Applicability.

(a) The regulations in Sections R315-264-10 through 19 apply to owners and operators of all hazardous waste facilities, except as provided in Section R315-264-1 and in Subsection R315-264-10(b).

(b) Subsection R315-264-18(b) applies only to facilities subject to regulation under Sections R315-264-170 through 179, 190 through 200, 220 through 232, 250 through 259, 270 through 283, 300 through 317, 340 through 351, and 600 through 603.

R315-264-11. Identification Number.

Every facility owner or operator shall apply to Director for an EPA identification number using EPA form 8700-12. Information on obtaining this number can be acquired by contacting the Utah Division of Waste Management and Radiation Control.

R315-264-12. General Facility Standards - Required Notices.

(a) The owner or operator of a facility that is arranging or has arranged to receive hazardous waste subject to Sections R315-262-80 through R315-262-84 from a foreign source shall submit the notices required by Subsections R315-264-12(a)(1) through R315-264-12(a)(4):

(1) In accordance with Subsection R315-262-84(b), for imports where the competent authority of the country of export does not require the foreign exporter to submit to it a notification proposing export and get consent from EPA and the competent authorities for the countries of transit, the owner or operator of the facility, if acting as the importer, shall provide notification of the proposed transboundary movement in English to EPA using the allowable methods listed in Subsection R315-262-84(b)(1) at least 60 days before the first shipment is expected to depart the country of export. The notification may cover up to one year of shipments of wastes having similar physical and chemical characteristics, the same United Nations classification, the same RCRA waste codes and OECD waste codes, and being sent from the same foreign exporter.

(2) In accordance with Subsection R315-262-84(d)(2)(xv), a copy of the movement document bearing each required signature within three working days of receipt of the shipment to the foreign exporter, to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively, and on or after the electronic import export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The original of the signed movement document shall be maintained at the facility for at least three years. The owner or operator of a facility may satisfy this recordkeeping requirement by keeping electronically submitted documents in the facility's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, if copies are readily available for viewing and production if requested by any EPA or Utah inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under Section R315-264-12 if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system that the owner or operator of a facility bears no responsibility.

(3) In accordance with Subsection R315-262-84(f)(4), if the facility has physical control of the waste and it must be sent to an alternate facility or returned to the country of export, the owner or operator of the facility shall inform EPA, using the allowable methods listed in Subsection R315-262-84(b)(1) of the need to return or arrange alternate management of the shipment.

(4) In accordance with Subsection R315-262-84(g), the owner or operator shall:

(i) Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and for shipments recycled or disposed of on or after the electronic import export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system.

(ii) If the facility performed any of recovery operations R12, R13, or RC3, or disposal operations D13 through D15, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC1, or one of disposal operations D1 through D12, or DC1 to DC2, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The recovery and disposal operations in Subsection R315-264-12(a)(4)(ii) are defined in Section R315-262-81.

(b) The owner or operator of a facility that receives hazardous waste from an off-site source, except if the owner or operator is also the generator, shall inform the generator in writing that the owner or operator has the appropriate permits for, and will accept, the waste the generator is shipping. The owner or operator shall keep a copy of this written notice as part of the operating record.

(c) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-

closure care period, the owner or operator shall notify the new owner or operator in writing of the requirements of Rule R315-264 and Rule R315-270. An owner's or operator's failure to notify the new owner or operator of the requirements of Rule R315-264 in no way relieves the new owner or operator of their obligation to comply with the applicable requirements.

R315-264-13. General Waste Analysis.

(a)(1) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or nonhazardous wastes if applicable under Subsection R315-264-113(d), he shall obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis shall contain all the information which shall be known to treat, store, or dispose of the waste in accordance with Rules R315-264 and 268.

(2) The analysis may include data developed under Rule R315-261, and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes. For example, the facility's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with Subsection R315-264-13(a)(1). The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part of the information required by Subsection R315-264-13(a)(1), except as otherwise specified in Subsections R315-268-7(b) and (c). If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with Section R315-264-13.

(3) The analysis shall be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis shall be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous wastes, or non-hazardous wastes if applicable under Subsection R315-264-113(d), has changed; and

(ii) For off-site facilities, when the results of the inspection required in Subsection R315-264-13(a)(4) indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

(4) The owner or operator of an off-site facility shall inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with Subsection R315-264-13(a). He shall keep this plan at the facility. At a minimum, the plan shall specify:

(1) The parameters for which each hazardous waste, or non-hazardous waste if applicable under Subsection R315-264-113(d), will be analyzed and the rationale for the selection of these parameters, i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with Subsection R315-264-13(a);

(2) The test methods which will be used to test for these parameters;

(3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in appendix I of Rule R315-261; or

(ii) An equivalent sampling method. See Section R315-260-21 for related discussion.

(4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date; and

(5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

(6) Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods as specified in Sections R315-264-17, 264-314, 264-341, 264-1083, and 268-7 and Subsections R315-264-1034(d) and 264-1063(d).

(7) For surface impoundments exempted from land disposal restrictions under Subsection R315-268-4(a), the procedures and schedules for:

(i) The sampling of impoundment contents;

(ii) The analysis of test data; and,

(iii) The annual removal of residues which are not delisted under Section R315-260-22 or which exhibit a characteristic of hazardous waste and either:

(A) Do not meet applicable treatment standards of Sections R315-268-40 through 49; or

(B) Where no treatment standards have been established:

(I) Such residues are prohibited from land disposal under Section R315-268-32 or RCRA section 3004(d); or

(II) Such residues are prohibited from land disposal under Subsection R315-268-33(f).

(8) For owners and operators seeking an exemption to the air emission standards of Sections R315-264-1080 through 1091 in accordance with Section R315-264-1082:

(i) If direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis, and the results of the analysis of test data to verify the exemption.

(ii) If knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator or by the generator of the hazardous waste, if the waste is received from off-site, that is used as the basis for knowledge of the waste.

(c) For off-site facilities, the waste analysis plan required in Subsection R315-264-13(b) shall also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan shall describe:

(1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

(2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification

method includes sampling.

(3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

R315-264-14. Security.

(a) The owner or operator shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless he can demonstrate to the Director that:

(1) Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility; and

(2) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of Rule R315-264. An owner or operator who wishes to make the demonstration referred to above shall do so with part B of the permit application.

(b) Unless the owner or operator has made a successful demonstration under Subsection R315-264-14(a)(1) and (2), a facility shall have:

(1) A 24-hour surveillance system, e.g., television monitoring or surveillance by guards or facility personnel, which continuously monitors and controls entry onto the active portion of the facility; or

(2)(i) An artificial or natural barrier, e.g., a fence in good repair or a fence combined with a cliff, which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility, e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility. The requirements of Subsection R315-264-14(b) are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of Subsection R315-264-14(b)(1) or (2).

(c) Unless the owner or operator has made a successful demonstration under Subsection R315-264-14(a)(1) and (2), a sign with the legend, "Danger-Unauthorized Personnel Keep Out", shall be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend shall be written in English and in any other language predominant in the area surrounding the facility, e.g., facilities in counties bordering the Canadian province of Quebec shall post signs in French; facilities in counties bordering Mexico shall post signs in Spanish, and shall be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger-Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous. See Subsection R315-264-117(b) for discussion of security requirements at disposal facilities during the post-closure care period.

R315-264-15. General Facility Standards -- General Inspection Requirements.

(a) The owner or operator shall inspect their facility for malfunctions and deterioration, operator errors, and discharges that may be causing, or may lead to, release of hazardous waste constituents to the environment or a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b)(1) The owner or operator shall develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment, such as dikes and sump pumps, that are important to preventing, detecting, or responding to environmental or human health hazards.

(2) The owner or operator shall keep this schedule at the facility.

(3) The schedule shall identify the types of problems, for example, malfunctions or deterioration, that are to be looked for during the inspection, for example, inoperative sump pump, leaking fitting, eroding dike.

(4) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, shall be inspected daily when in use. At a minimum, the inspection schedule shall include the items and frequencies called for in Sections R315-264-174, R315-264-193, R315-264-195, R315-264-226, R315-264-254, R315-264-278, R315-264-303, R315-264-347, R315-264-602, R315-264-1033, R315-264-1052, R315-264-1053, R315-264-1058, and R315-264-1083 through R315-264-1089, if applicable. Rule R315-270 requires the inspection schedule to be submitted with part B of the permit application. The director shall evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the director may modify or amend the schedule as may be necessary.

(c) The owner or operator shall remedy any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule that ensures that the problem does not lead to an environmental or human health hazard. If a hazard is imminent or has already occurred, remedial action shall be taken immediately.

(d) The owner or operator shall record inspections in an inspection log or summary. The owner or operator shall keep these records for at least three years from the date of inspection. At a minimum, these records shall include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

R315-264-16. Personnel Training.

(a)(1) Facility personnel shall successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of Rule R315-264. The owner or operator shall

ensure that this program includes all the elements described in the document required under Subsection R315-264-16(d)(3). Rule R315-270 requires that owners and operators submit with part B of the RCRA permit application, an outline of the training program used, or to be used, at the facility and a brief description of how the training program is designed to meet actual job tasks.

(2) This program shall be directed by a person trained in hazardous waste management procedures, and shall include instruction which teaches facility personnel hazardous waste management procedures, including contingency plan implementation, relevant to the positions in which they are employed.

(3) At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

(4) For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the facility is not required to provide separate emergency response training pursuant to Section R315-264-16, provided that the overall facility training meets all the requirements Section R315-264-16.

(b) Facility personnel shall successfully complete the program required in Subsection R315-264-16(a) within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations shall not work in unsupervised positions until they have completed the training requirements of Subsection R315-264-16(a).

(c) Facility personnel shall take part in an annual review of the initial training required in Subsection R315-264-16(a).

(d) The owner or operator shall maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under Subsection R315-264-16(d)(1). This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but shall include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under Subsection R315-264-16(d)(1);

(4) Records that document that the training or job experience required under Subsections R315-264-16(a), (b), and (c) has been given to, and completed by, facility personnel.

(e) Training records on current personnel shall be kept until closure of the facility; training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

R315-264-17. General Requirements for Ignitable, Reactive, or Incompatible Wastes.

(a) The owner or operator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste shall be separated and protected from sources of ignition or reaction including but not limited to: open flames; smoking; cutting and welding; hot surfaces; frictional heat; sparks, static, electrical, or mechanical; spontaneous ignition, e.g., from heat-producing chemical reactions; and radiant heat. While ignitable or reactive waste is being handled, the owner or operator shall confine smoking and open flame to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of Rule R315-264, the owner or operator of a facility that treats, stores or disposes ignitable or reactive waste, or mixes incompatible waste or incompatible wastes and other materials, shall take precautions to prevent reactions which:

(1) Generate extreme heat or pressure, fire or explosions, or violent reactions;

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(4) Damage the structural integrity of the device or facility;

(5) Through other like means threaten human health or the environment.

(c) When required to comply with Subsections R315-264-17(a) or (b), the owner or operator shall document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests, e.g., bench scale or pilot scale tests, waste analyses, as specified in Section R315-264-264-13, or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

R315-264-18. Location Standards.

(a) Seismic considerations.

(1) Portions of new facilities where treatment, storage, or disposal of hazardous waste will be conducted shall not be located within 61 meters (200 feet) of a fault which has had displacement in Holocene time. Procedures for demonstrating compliance with this standard in part B of the permit application are specified in Subsection R315-270-14(b)(11). Facilities which are located in political

jurisdictions other than those listed in appendix VI of Rule R315-264, are assumed to be in compliance with this requirement.

(2) As used in Subsection R315-264-18(a)(1):

(i) "Fault" means a fracture along which rocks on one side have been displaced with respect to those on the other side.

(ii) "Displacement" means the relative movement of any two sides of a fault measured in any direction.

(iii) "Holocene" means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene to the present.

(b) Floodplains.

(1) A facility located in a 100-year floodplain shall be designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a 100-year flood, unless the owner or operator can demonstrate to the Director's satisfaction that:

(i) Procedures are in effect which will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters, provided that the facility where the waste is moved is a permitted hazardous waste disposal facility or a facility in interim status; or

(ii) For existing surface impoundments, waste piles, land treatment units, landfills, and miscellaneous units, no adverse effects on human health or the environment will result if washout occurs, considering:

(A) The volume and physical and chemical characteristics of the waste in the facility;

(B) The concentration of hazardous constituents that would potentially affect surface waters as a result of washout;

(C) The impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface waters; and

(D) The impact of hazardous constituents on the sediments of affected surface waters or the soils of the 100-year floodplain that could result from washout.

(2) As used in Subsection R315-264-18(b)(1):

(i) "100-year floodplain" means any land area which is subject to a one percent or greater chance of flooding in any given year from any source.

(ii) "Washout" means the movement of hazardous waste from the active portion of the facility as a result of flooding.

(iii) "100-year flood" means a flood that has a one percent chance of being equalled or exceeded in any given year.

(c) Salt dome formations, salt bed formations, underground mines and caves. The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave is prohibited, except for the Department of Energy Waste Isolation Pilot Project in New Mexico.

R315-264-19. Construction Quality Assurance Program.

(a) CQA program.

(1) A construction quality assurance (CQA) program is required for all surface impoundment, waste pile, and landfill units that are required to comply with Subsections R315-264-221(c) and (d), 264-251(c) and (d), and 264-301(c) and (d). The program shall ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program shall be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

(2) The CQA program shall address the following physical components, where applicable:

(i) Foundations;

(ii) Dikes;

(iii) Low-permeability soil liners;

(iv) Geomembranes, flexible membrane liners;

(v) Leachate collection and removal systems and leak detection systems; and

(vi) Final cover systems.

(b) Written CQA plan. The owner or operator of units subject to the CQA program under Subsection R315-264-19(a) shall develop and implement a written CQA plan. The plan shall identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan shall include:

(1) Identification of applicable units, and a description of how they will be constructed.

(2) Identification of key personnel in the development and implementation of the CQA plan, and CQA officer qualifications.

(3) A description of inspection and sampling activities for all unit components identified in Subsection R315-264-19(a)(2), including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description shall cover: Sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under Sections R315-264-73.

(c) Contents of program.

(1) The CQA program shall include observations, inspections, tests, and measurements sufficient to ensure:

(i) Structural stability and integrity of all components of the unit identified in Subsection R315-264-19(a)(2);

(ii) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components, e.g., pipes, according to design specifications;

(iii) Conformity of all materials used with design and other material specifications under Sections R315-264-221, 264-251, and 264-301.

(2) The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of Subsections R315-264-221(c)(1)(i)(B), 264-251(c)(1)(i)(B), and 264-301(c)(1)(i)(B) in the field. Compliance with the hydraulic conductivity requirements shall be verified by

using in-situ testing on the constructed test fill. The Director may accept an alternative demonstration, in lieu of a test fill, where data are sufficient to show that a constructed soil liner will meet the hydraulic conductivity requirements of Subsections R315-264-221(c)(1)(i)(B), 264-251(c)(1)(i)(B), and 264-301(c)(1)(i)(B) in the field.

(d) Certification. Waste shall not be received in a unit subject to Section R315-26419 until the owner or operator has submitted to the Director by certified mail or hand delivery a certification signed by the CQA officer that the approved CQA plan has been successfully carried out and that the unit meets the requirements of Subsections R315-264-221 (c) or (d), 264-251 (c) or (d), or 264-301 (c) or (d); and the procedure in Subsection R315-270-30(l)(2)(ii) has been completed. Documentation supporting the CQA officer's certification shall be furnished to the Director upon request.

R315-264-30. Applicability.

The regulations in Sections R316-264-30 through 37 apply to owners and operators of all hazardous waste facilities, except as Section R315-264-1 provides otherwise.

R315-264-31. Design and Operation of Facility.

Facilities shall be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

R315-264-32. Required Equipment.

All facilities shall be equipped with the following, unless it can be demonstrated to the Director that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility personnel;

(b) A device, such as a telephone, immediately available at the scene of operations, or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment; including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals; spill control equipment; and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

Rule R315-270 requires that an owner or operator who wishes to make the demonstration referred to above shall do so with part B of the permit application.

R315-264-33. Testing and Maintenance of Equipment.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

R315-264-34. Access to Communications or Alarm System.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the Director has ruled that such a device is not required under Section R315-264-32.

(b) If there is ever just one employee on the premises while the facility is operating, he shall have immediate access to a device, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless the Director has ruled that such a device is not required under Section R315-264-32.

R315-264-35. Required Aisle Space.

The owner or operator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the Director that aisle space is not needed for any of these purposes. This demonstration shall be made with the part B permit application.

R315-264-37. Arrangements with Local Authorities.

(a) The owner or operator shall attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State or local authorities decline to enter into such arrangements, the owner or operator shall document the refusal in

the operating record.

R315-264-50. Contingency Plan and Emergency Procedures -- Applicability.

The regulations in Sections R315-264-50 through 56 apply to owners and operators of all hazardous waste facilities, except as Section R315-264-1 provides otherwise.

R315-264-51. Purpose and Implementation of Contingency Plan.

(a) Each owner or operator shall have a contingency plan for his facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

R315-264-52. Content of Contingency Plan.

(a) The contingency plan shall describe the actions facility personnel shall take to comply with Sections R315-264-51 and 56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of Rule R315-264. The owner or operator may develop one contingency plan which meets all regulatory requirements. EPA recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

(c) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to Section R315-264-37.

(d) The plan shall list names, addresses, and phone numbers, office and home, of all persons qualified to act as emergency coordinator, see Section R315-264-55, and this list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates. For new facilities, this information shall be supplied to the Director at the time of certification, rather than at the time of permit application.

(e) The plan shall include a list of all emergency equipment at the facility; such as fire extinguishing systems, spill control equipment, communications and alarm systems, internal and external, and decontamination equipment; where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by releases of hazardous waste or fires.

R315-264-53. Copies of Contingency Plan.

A copy of the contingency plan and all revisions to the plan shall be:

(a) Maintained at the facility;

(b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services; and

(c) Made available upon request. The contingency plan shall be submitted to the Director with Part B of the permit application under Rule R315-270 and, after modification or approval, will become a condition of any permit issued.

R315-264-54. Amendment of Contingency Plan.

The contingency plan shall be reviewed, and immediately amended, if necessary, whenever:

(a) The facility permit is revised;

(b) The plan fails in an emergency;

(c) The facility changes-in its design, construction, operation, maintenance, or other circumstances-in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

R315-264-55. Emergency Coordinator.

At all times, there shall be at least one employee either on the facility premises or on call, i.e., available to respond to an emergency by reaching the facility within a short period of time, with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in Section R315-264-56. Applicable responsibilities for the emergency coordinator

vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.

R315-264-56. Emergency Procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator, or his designee when the emergency coordinator is on call, shall immediately:

(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(2) Notify appropriate State or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions.

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he shall report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he shall immediately notify appropriate local authorities. He shall be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He shall immediately notify Utah Department of Environmental Quality as specified in Section R315-263-30 and either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using their 24-hour toll free number 800/424-8802). The report shall include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident (e.g., release, fire);

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the owner or operator can demonstrate, in accordance with Subsection R315-261-3(c) or (d), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Rules R315-262, 263, and 264.

(h) The emergency coordinator shall ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he shall submit a written report on the incident to the Director. The report shall include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident (e.g., fire, explosion);

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

(j) The facility owner or operator shall notify the Director and other appropriate federal, State, and local authorities, that the facility is in compliance with R315-264-56(h) before operations are resumed in the affected area(s) of the facility.

R315-264-70. Manifest System, Recordkeeping, and Reporting -- Applicability.

(a) The regulations in Sections R315-264-70 through 77 apply to owners and operators of both on-site and off-site facilities, except as Section R315-264-1 provides otherwise. Sections R315-264-71, 72, and 76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources. Subsection R315-264-73(b) only applies to permittees who treat, store, or dispose of hazardous wastes on-site where such wastes were generated.

R315-264-71. Manifest System, Recordkeeping, and Reporting -- Use of Manifest System.

(a)(1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator or the owner or operator's agent

shall sign and date the manifest as indicated in Subsection R315-264-71(a)(2) to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

(2) If the facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator, or the owner or operator's agent shall:

(i) sign and date each copy of the manifest;

(ii) note any discrepancies, as defined in Subsection R315-264-72(a), on each copy of the manifest;

(iii) immediately give the transporter at least one copy of the manifest;

(iv) within 30 days of delivery, send a copy, Page 2, of the manifest to the generator;

(v) paper manifest submission requirements are:

(A) Options for compliance on June 30, 2018. Beginning on June 30, 2018, send the top copy, Page 1, of any paper manifest and any paper continuation sheet to the e-Manifest system for data entry and processing, or in lieu of submitting the paper copy to EPA, the owner or operator may transmit to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made at the mailing address or electronic mail or submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, EPA will not accept mailed paper manifests from facilities for processing in e-Manifest.

(B) Options for compliance on June 30, 2021. Beginning on June 30, 2021, the requirement to submit the top copy, Page 1, of the paper manifest and any paper continuation sheet to the e-Manifest system for data entry and processing may be met by the owner or operator only by transmitting to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or by transmitting to the EPA system both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made to the electronic mail or submission address specified at the e-Manifest program website's directory of services; and

(vi) keep at the facility a copy of each manifest for at least three years from the date of delivery.

(3) The owner or operator of a facility receiving hazardous waste subject to Sections R315-262-80 through R315-262-84 from a foreign source shall:

(i) additionally list the relevant consent number from consent documentation supplied by EPA to the facility for each waste listed on the manifest, matched to the relevant list number for the waste from block 9b. If additional space is needed, the owner or operator should use a continuation sheet or sheets, EPA Form 8700-22A; and

(ii) send a copy of the manifest within 30 days of delivery to EPA using the addresses listed in Subsection R315-262-82(e) until the facility can submit a copy to the e-Manifest system per Subsection R315-264-71(a)(2)(v).

(b) If a facility receives, from a rail or water, bulk shipment, transporter, hazardous waste that is accompanied by a shipping paper containing the information required on the manifest; excluding the EPA identification numbers, generator's certification, and signatures; the owner or operator, or the owner or operator's agent, shall:

(1) sign and date each copy of the manifest or shipping paper, if the manifest has not been received, to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) note any significant discrepancies, as defined in Subsection R315-264-72(a), in the manifest or shipping paper, if the manifest has not been received, on each copy of the manifest or shipping paper. The director does not intend that the owner or operator of a facility whose procedures under Subsection R315-264-13(c) include waste analysis shall perform that analysis before signing the shipping paper and giving it to the transporter. Subsection R315-264-72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

(3) immediately give the rail or water, bulk shipment, transporter at least one copy of the manifest or shipping paper, if the manifest has not been received;

(4) within 30 days after the delivery, send a copy of the signed and dated manifest or a signed and dated copy of the shipping paper, if the manifest has not been received within 30 days after delivery, to the generator; and

Comment: Subsection R315-262-23(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water, bulk shipment.

(5) keep at the facility a copy of the manifest and shipping paper, if signed in lieu of the manifest when delivered, for at least three years from the date of delivery.

(c) When a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements of Rule R315-262. Sections R315-262-15, R315-262-16, and R315-262-17 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, Sections R315-262-15, R315-262-16, and R315-262-17 only apply to owners or operators who are shipping hazardous waste that they generated at that facility or operating as a large quantity generator consolidating hazardous waste from very small quantity generators under Subsection R315-262-17(f).

(d) As per Subsection R315-262-84(d)(2)(xv), within three working days of the receipt of a shipment subject to Sections R315-262-80 through R315-262-84 the owner or operator of a facility shall provide a copy of the movement document bearing the required signatures to the foreign exporter; to the competent authorities of the countries of export and transit that control the shipment as an export and transit of hazardous waste respectively; and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The original copy of the movement document shall be maintained at the facility for at least three years from the date of signature. The owner or operator of a facility may satisfy this recordkeeping requirement by keeping electronically submitted documents in the facility's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, if the copies are readily available for viewing and

production if requested by any EPA or Utah inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under Section R315-264-71 if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system, for which the owner or operator of a facility bears no responsibility.

(e) A facility shall determine whether the consignment state for a shipment regulates any additional wastes, beyond those regulated federally, as hazardous wastes under its state hazardous waste program. Facilities shall also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to these states.

(f) Legal equivalence to paper manifests. Electronic manifests that are gotten, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with Section R315-264-71 in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy any requirement in Title R315 to get, complete, sign, provide, use, or keep a manifest.

(1) Any requirement in Title R315 for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to get a handwritten signature, is satisfied by signing with or getting a valid and enforceable electronic signature within the meaning of 40 CFR 262.25.

(2) Any requirement in Title R315 to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person.

(3) Any requirement in Title R315 for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person who is scheduled to receive delivery of the waste shipment.

(4) Any requirement in Title R315 for an owner or operator to keep a copy of each manifest is satisfied by the retention of the facility's electronic manifest copies in its account on the e-Manifest system, if the copies are readily available for viewing and production if requested by any EPA or Division of Waste Management and Radiation Control inspector.

(5) No owner or operator may be held liable for the inability to produce an electronic manifest for inspection under Section R315-264-71 if the owner or operator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the owner or operator bears no responsibility.

(g) An owner or operator may participate in the electronic manifest system either by accessing the electronic manifest system from the owner's or operator's electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the owner's or operator's site by the transporter who delivers the waste shipment to the facility.

(h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the following procedures apply to the delivery of the hazardous waste by the final transporter:

(1) Upon delivery of the hazardous waste to the designated facility, the owner or operator shall sign and date each copy of the paper replacement manifest by hand in Item 20, Designated Facility Certification of Receipt, and note any discrepancies in Item 18, Discrepancy Indication Space, of the paper replacement manifest.

(2) The owner or operator of the facility shall give back to the final transporter one copy of the paper replacement manifest.

(3) Within 30 days of delivery of the waste to the designated facility, the owner or operator of the facility shall send one signed and dated copy of the paper replacement manifest to the generator, and send an additional signed and dated copy of the paper replacement manifest to the electronic manifest system.

(4) The owner or operator of the facility shall keep at the facility one copy of the paper replacement manifest for at least three years from the date of delivery.

(i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an electronic manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the owner or operator shall also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator shall keep this original copy among its records for at least 3 years from the date of delivery of the waste.

(j) Imposition of user fee for manifest submissions.

(1) As prescribed in 40 CFR 264.1311, and determined in 40 CFR 264.1312, which are incorporated by reference, an owner or operator who is a user of the electronic manifest system shall be assessed a user fee by EPA for the submission and processing of each electronic and paper manifest. EPA shall update the schedule of user fees and publish them to the user community, as provided in 40 CFR 264.1313, which is adopted and incorporated by reference.

(2) An owner or operator subject to user fees under Section R315-264-71 shall make user fee payments in accordance with the requirements of 40 CFR 264.1314, which is incorporated by reference, subject to the informal fee dispute resolution process of 40 CFR 264.1316, which is incorporated by reference, and subject to the sanctions for delinquent payments under 40 CFR 264.1315, which is incorporated by reference.

(k) Electronic manifest signatures. Electronic manifest signatures shall meet the criteria described in 40 CFR 262.25.

(l) Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person, such as the waste handler, shown on the manifest.

(1) Interested persons shall make each correction to manifest data by electronic submission, either by directly entering corrected data to the web based service provided in e-Manifest for the corrections, or by an upload of a data file containing data corrections relating to one or more previously submitted manifests.

(2) Each correction submission shall include the following information:

(i) the Manifest Tracking Number and date of receipt by the facility of the original manifests for which data are being corrected;

(ii) the item numbers of the original manifest that is the subject of the submitted corrections; and

(iii) for each item number with corrected data, the data previously entered and the corresponding data as corrected by the correction submission.

(3) Each correction submission shall include a statement that the person submitting the corrections certifies that to the best of their knowledge or belief, the corrections that are included in the submission will cause the information reported about the previously received hazardous wastes to be true, accurate, and complete.

(i) The certification statement shall be executed with a valid electronic signature; and

(ii) A batch upload of data corrections may be submitted under one certification statement.

(4) Upon receipt by the system of any correction submission, other interested persons shown on the manifest will be provided electronic notice of the submitter's corrections.

(5) Other interested persons shown on the manifest may respond to the submitter's corrections with comments to the submitter, or by submitting another correction to the system, certified by the respondent as specified in Subsection R315-264-71(l)(3), and with notice of the corrections to other interested persons shown on the manifest.

R315-264-72. Manifest Discrepancies.

(a) Manifest discrepancies are:

(1) significant differences, as defined by Subsection R315-264-72(b), between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives;

(2) rejected wastes, which may be a full or partial shipment of hazardous waste that the treatment, storage, or disposal facility cannot accept; or

(3) container residues, which are residues that exceed the quantity limits for empty containers set forth in Subsection R315-261-7(b) and Section R315-266-507.

(b) Significant differences in quantity are: for bulk waste, variations greater than 10% in weight; for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant differences in type are obvious differences that can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(c) Upon discovering a significant difference in quantity or type, the owner or operator shall try to reconcile the discrepancy with the waste generator or transporter, for example with telephone conversations. If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator shall immediately submit to the director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(d)(1) Upon rejecting waste or identifying a container residue that exceeds the quantity limits for empty containers set forth in Subsection R315-261-7(b), the facility shall consult with the generator before forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative facility that can receive the waste, the facility may return the rejected waste or residue to the generator. The facility shall send the waste to the alternative facility or to the generator within 60 days of the rejection or the container residue identification.

(2) While the facility is making arrangements for forwarding rejected wastes or residues to another facility under Section R315-264-72, it shall ensure that either the delivering transporter keeps custody of the waste, or, the facility shall provide for secure, temporary custody of the waste, pending delivery of the waste to the first transporter designated on the manifest prepared under Subsection R315-264-72(e) or R315-264-72(f).

(e) Except as provided in Subsection R315-264-72(e)(7), for full or partial load rejections and residues that are to be sent off-site to an alternate facility, the facility shall prepare a new manifest in accordance with Subsection R315-262-20(a) and the instructions contained in Subsections R315-264-72(e)(1) through R315-264-72(e)(7):

(1) Write the generator's U.S. EPA ID number in Item 1 of the new manifest. Write the generator's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the generator's site address, then write the generator's site address in the designated space for Item 5.

(2) Write the name of the alternate designated facility and the facility's U.S. EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, U.S. DOT Description, of the new manifest and write the container types, quantity, and volumes of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation, and mail a signed copy of the manifest to the generator identified in Item 5 of the new manifest.

(7) For full load rejections that are made while the transporter remains present at the facility, the facility may forward the rejected shipment to the alternate facility by completing Item 18b of the original manifest and supplying the information on the next destination facility in the Alternate Facility space. The facility shall keep a copy of this manifest for its records, and then give the

remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-264-72(e)(1), R315-264-72(e)(2), R315-264-72(e)(3), R315-264-72(e)(4), R315-264-72(e)(5), and R315-264-72(e)(6).

(f) Except as provided in Subsection R315-264-72(f)(7), for rejected wastes and residues that shall be sent back to the generator, the facility shall prepare a new manifest in accordance with Subsection R315-262-20(a) and the instructions contained in Subsections R315-264-72(f)(1) through R315-264-72(f)(8):

(1) Write the facility's U.S. EPA ID number in Item 1 of the new manifest. Write the facility's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the facility's site address, then write the facility's site address in the designated space for Item 5 of the new manifest.

(2) Write the name of the initial generator and the generator's U.S. EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, U.S. DOT Description, of the new manifest and write the container types, quantity, and volumes of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation.

(7) For full load rejections that are made while the transporter remains at the facility, the facility may return the shipment to the generator with the original manifest by completing Item 18a and 18b of the manifest and supplying the generator's information in the Alternate Facility space. The facility shall keep a copy for its records and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-264-72(f)(1), R315-264-72(f)(2), R315-264-72(f)(3), R315-264-72(f)(4), R315-264-72(f)(5), R315-264-72(f)(6), and R315-264-72(f)(8).

(8) For full or partial load rejections and container residues contained in non empty containers that are returned to the generator, the facility shall also comply with the exception reporting requirements in Subsection R315-262-42(a).

(g) If a facility rejects a waste or identifies a container residue that exceeds the quantity limits for empty containers set forth in Subsection R315-261-7(b) after it has signed, dated, and returned a copy of the manifest to the delivering transporter or to the generator, the facility shall amend its copy of the manifest to show the rejected wastes or residues in the discrepancy space of the amended manifest. The facility shall also copy the manifest tracking number from Item 4 of the new manifest to the Discrepancy space of the amended manifest, and shall resign and date the manifest to certify to the information as amended. The facility shall keep the amended manifest for at least three years from the date of amendment, and shall within 30 days, send a copy of the amended manifest to the transporter and generator that received copies before their being amended.

R315-264-73. Operating Record.

(a) The owner or operator shall keep a written operating record at his facility.

(b) The following information shall be recorded, as it becomes available, and maintained in the operating record for three years unless noted as follows:

(1) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by appendix I of Rule R315-264. This information shall be maintained in the operating record until closure of the facility;

(2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste shall be recorded on a map or diagram that shows each cell or disposal area. For all facilities, this information shall include cross-references to manifest document numbers if the waste was accompanied by a manifest. This information shall be maintained in the operating record until closure of the facility. See Section R315-264-119 for related requirements.

(3) Records and results of waste analyses and waste determinations performed as specified in Sections R315-264-13, 17, 314, 341, 1034, 1063, 1083, and 268-7, and Subsection R315-268-4(a).

(4) Summary reports and details of all incidents that require implementing the contingency plan as specified in Subsection R315-264-56(j);

(5) Records and results of inspections as required by Subsection R315-264-15(d), except these data need be kept only three years;

(6) Monitoring, testing or analytical data, and corrective action where required by Sections R315-264-90 through 101, and Sections R315-264-19, 191, 193, 195, 222, 223, 226, 252, 254, 276, 278, 280, 302, 304, 309, 602, 1035, 1064, and 1082 through 1090 and Subsections R315-264-1034(c), 1034(f), 1063(d), and 1063(i). Maintain in the operating record for three years, except for records and results pertaining to ground-water monitoring and cleanup which shall be maintained in the operating record until closure of the facility.

(7) For off-site facilities, notices to generators as specified in Subsection R315-264-12(b); and

(8) All closure cost estimates under Section R315-264-142, and for disposal facilities, all post-closure cost estimates under Section R315-264-144. This information shall be maintained in the operating record until closure of the facility.

(9) A certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.

(10) Records of the quantities and date of placement for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to Section R315-268-5, a petition pursuant to Section R315-268-6, or a certification under R315-268-8, and the applicable notice required by a generator under Subsection R315-268-7(a). This information shall be maintained in the operating record until closure of the facility.

(11) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under Sections R315-268-7 or 8;

(12) For an on-site treatment facility, the information contained in the notice, except the manifest number, and the certification and demonstration if applicable, required by the generator or the owner or operator under Sections R315-268-7 or 8;

(13) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under Sections R315-268-7 or 8, whichever is applicable; and

(14) For an on-site land disposal facility, the information contained in the notice required by the generator or owner or operator of a treatment facility under Section R315-268-7, except for the manifest number, and the certification and demonstration if applicable, required under Section R315-268-8, whichever is applicable.

(15) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under Sections R315-268-7 or 8; and

(16) For an on-site storage facility, the information contained in the notice, except the manifest number, and the certification and demonstration if applicable, required by the generator or the owner or operator under Sections R315-268-7 or 8.

(17) Any records required under Subsection R315-264-1(j)(13).

(18) Monitoring, testing or analytical data where required by Section R315-264-347 shall be maintained in the operating record for five years.

(19) Certifications as required by Subsection R315-264-196(f) shall be maintained in the operating record until closure of the facility.

R315-264-74. Availability, Retention, and Disposition of Records.

(a) All records, including plans, required under Rule R315-264 shall be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of EPA who is duly designated by the Administrator, or any designated representative of the Director.

(b) The retention period for all records required under Rule R315-264 is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Director.

(c) A copy of records of waste disposal locations and quantities under Subsection R315-264-73(b)(2) shall be submitted to the Director and local land authority upon closure of the facility.

R315-264-75. Manifest System, Recordkeeping, and Reporting -- Biennial Report.

The owner or operator shall complete and submit EPA Form 8700-13 A/B to the Director by March 1 of the following even numbered year and shall cover activities during the previous year.

R315-264-76. Unmanifested Waste Report.

(a) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described by Subsection R315-263-20(e), and if the waste is not excluded from the manifest requirement by Rules R315-260, through 266, 268, 270, and 273 then the owner or operator shall prepare and submit a letter to the Director within 15 days after receiving the waste. The unmanifested waste report shall contain the following information:

(1) The EPA identification number, name and address of the facility;

(2) The date the facility received the waste;

(3) The EPA identification number, name and address of the generator and the transporter, if available;

(4) A description and the quantity of each unmanifested hazardous waste the facility received;

(5) The method of treatment, storage, or disposal for each hazardous waste;

(6) The certification signed by the owner or operator of the facility or his authorized representative; and,

(7) A brief explanation of why the waste was unmanifested, if known.

R315-264-77. Additional Reports.

In addition to submitting the biennial reports and unmanifested waste reports described in Sections R315-264-75 and 76, the owner or operator shall also report to the Director:

(a) Releases, fires, and explosions as specified in Subsection R315-264-56(j);

(b) Facility closures specified in Section R315-264-115; and

(c) As otherwise required by Sections R315-264-90 through 101, 220 through 232, 250 through 259, 270 through 283, 300 through 317, 1030 through 1049, 1050 through 1079, and 1080 through 1091.

R315-264-90. Releases From Solid Waste Management Units -- Applicability.

(a)(1) Except as provided in Subsection R315-264-90 (b), the regulations in Sections R315-264-90 through 101 apply to owners or operators of facilities that treat, store or dispose of hazardous waste. The owner or operator shall satisfy the requirements identified in Subsection R315-264-90(a)(2) for all wastes, or constituents thereof, contained in solid waste management units at the facility, regardless of the time at which waste was placed in such units.

(2) All solid waste management units shall comply with the requirements in Section R315-264-101. A surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982, hereinafter referred to as a "regulated unit", shall comply with the requirements of Sections R315-264-91 through 100 in lieu of Section R315-264-101 for purposes of detecting, characterizing and responding to releases to the uppermost aquifer. The financial responsibility requirements of Section R315-264-101 apply to regulated units.

(3) Groundwater monitoring shall be required at non-land disposal facilities as determined to be necessary and appropriate by the Director.

(b) The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under Sections R315-264-90 through 101 if:

(1) The owner or operator is exempted under Section R315-264-1; or

(2) He operates a unit which the Director finds:

(i) Is an engineered structure,

(ii) Does not receive or contain liquid waste or waste containing free liquids,

(iii) Is designed and operated to exclude liquid, precipitation, and other run-on and run-off,

(iv) Has both inner and outer layers of containment enclosing the waste,

(v) Has a leak detection system built into each containment layer,

(vi) The owner or operator shall provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods, and

(vii) To a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period.

(3) The Director finds, pursuant to Section R315-264-280(d), that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of Section R35-264-278 has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under Subsection R315-264-90(b) can only relieve an owner or operator of responsibility to meet the requirements of Sections R315-264-90 through 101 during the post-closure care period; or

(4) The Director finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit, including the closure period, and the post-closure care period specified under Section R315-264-117. This demonstration shall be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator shall base any predictions made under Subsection R315-264-90(b) on assumptions that maximize the rate of liquid migration.

(5) He designs and operates a pile in compliance with Section R315-264-250(c).

(c) The regulations under Sections R315-264-90 through 101 apply during the active life of the regulated unit, including the closure period. After closure of the regulated unit, the regulations in Sections R315-264-90 through 101:

(1) Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure;

(2) Apply during the post-closure care period under Section R315-264-117 if the owner or operator is conducting a detection monitoring program under Section R315-264-98; or

(3) Apply during the compliance period under Section R315-264-96 if the owner or operator is conducting a compliance monitoring program under Section R315-264-99 or a corrective action program under Section R315-264-100.

(d) Regulations in Sections R315-264-90 through 101 may apply to miscellaneous units when necessary to comply with Sections R315-264-601 through 603.

(e) The regulations of Sections R315-264-90 through 101 apply to all owners and operators subject to the requirements of Subsection R315-270-1(c)(7), when the Agency issues either a post-closure permit or an enforceable document, as defined in Subsection R315-270-1(c)(7) at the facility. When the Director issues an enforceable document, references in Sections R315-264-90 through 101 to "in the permit" mean "in the enforceable document."

(f) The Director may replace all or part of the requirements of Sections R315-264-91 through 100 applying to a regulated unit with alternative requirements for groundwater monitoring and corrective action for releases to groundwater set out in the permit, or in an enforceable document, as defined in Subsection R315-270-1(c)(7), where the Director determines that:

(1) The regulated unit is situated among solid waste management units, or areas of concern, a release has occurred, and both the regulated unit and one or more solid waste management unit(s), or areas of concern, are likely to have contributed to the release; and

(2) It is not necessary to apply the groundwater monitoring and corrective action requirements of Sections R315-264-91 through 100 because alternative requirements will protect human health and the environment.

R315-264-91. Required Programs.

(a) Owners and operators subject to Sections R315-264-90 through 101 shall conduct a monitoring and response program as follows:

(1) Whenever hazardous constituents under Section R315-264-93 from a regulated unit are detected at a compliance point under Section R315-264-95, the owner or operator shall institute a compliance monitoring program under Section R315-264-99. Detected is defined as statistically significant evidence of contamination as described in Subsection R315-264-98(f);

(2) Whenever the ground-water protection standard under Section R315-264-92 is exceeded, the owner or operator shall institute a corrective action program under Section R315-264-100. Exceeded is defined as statistically significant evidence of increased

contamination as described in Subsection R315-264-99(d);

(3) Whenever hazardous constituents under Section R315-264-93 from a regulated unit exceed concentration limits under Section R315-264-94 in ground water between the compliance point under Section R315-264-95 and the downgradient facility property boundary, the owner or operator shall institute a corrective action program under Section R315-264-100; or

(4) In all other cases, the owner or operator shall institute a detection monitoring program under Section R315-264-98.

(b) The Director shall specify in the facility permit the specific elements of the monitoring and response program. The Director may include one or more of the programs identified in Subsection R315-264-91(a) in the facility permit as may be necessary to protect human health and the environment and will specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the Director shall consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.

R315-264-92. Ground-Water Protection Standard.

The owner or operator shall comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under Section R315-264-93 detected in the ground water from a regulated unit do not exceed the concentration limits under Section R315-264-94 in the uppermost aquifer underlying the waste management area beyond the point of compliance under Section R315-264-95 during the compliance period under Section R315-264-96. The Director shall establish this ground-water protection standard in the facility permit when hazardous constituents have been detected in the ground water.

R315-264-93. Hazardous Constituents.

(a) The Director shall specify in the facility permit the hazardous constituents to which the ground-water protection standard of Section R315-264-92 applies. Hazardous constituents are constituents identified in appendix VIII of Rule R315-261 that have been detected in ground water in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the Director has excluded them under Subsection R315-264-93(b).

(b) The Director shall exclude a Rule R315-261 appendix VIII constituent from the list of hazardous constituents specified in the facility permit if he finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the Director shall consider the following:

(1) Potential adverse effects on ground-water quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of ground water and the direction of ground-water flow;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The current and future uses of ground water in the area;

(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of ground water, and the direction of ground-water flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under Subsection R315-264-93(b) about the use of ground water in the area around the facility, the Director shall consider any identification of underground sources of drinking water and exempted aquifers made under 40 CFR 144.8.

R315-264-94. Concentration Limits.

(a) The Director shall specify in the facility permit concentration limits in the ground water for hazardous constituents established under Section R315-264-93. The concentration of a hazardous constituent:

(1) Shall not exceed the background level of that constituent in the ground water at the time that limit is specified in the permit; or

(2) For any of the constituents listed in Table 1, shall not exceed the respective value given in that table if the background level of the constituent is below the value given in Table 1; or

Table 1

Maximum Concentration of Constituents for Ground-water

Constituent	Maximum concentration(1)
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05
Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy 1,4,4a,5,6,7,8,9a-octahydro-1, 4-endo, endo-5,8-dimethano naphthalene)	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer)	0.004
Methoxychlor (1,1,1-Trichloro-2,2-bis (p-methoxyphenylethane)	0.1
Toxaphene (C10H10Cl6, Technical chlorinated camphene, 67-69 percent chlorine)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid)	0.1
2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	0.01

(1) Milligrams per liter.

(3) Shall not exceed an alternate limit established by the Director under Subsection R315-264-94(b).

(b) The Director shall establish an alternate concentration limit for a hazardous constituent if he finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded. In establishing alternate concentration limits, the Director shall consider the following factors:

(1) Potential adverse effects on ground-water quality, considering:

(i) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity of ground water and the direction of ground-water flow;

(iv) The proximity and withdrawal rates of ground-water users;

(v) The current and future uses of ground water in the area;

(vi) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(vii) The potential for health risks caused by human exposure to waste constituents;

(viii) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(ix) The persistence and permanence of the potential adverse effects; and

(2) Potential adverse effects on hydraulically-connected surface-water quality, considering:

(i) The volume and physical and chemical characteristics of the waste in the regulated unit;

(ii) The hydrogeological characteristics of the facility and surrounding land;

(iii) The quantity and quality of ground water, and the direction of ground-water flow;

(iv) The patterns of rainfall in the region;

(v) The proximity of the regulated unit to surface waters;

(vi) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

(vii) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

(viii) The potential for health risks caused by human exposure to waste constituents;

(ix) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

(x) The persistence and permanence of the potential adverse effects.

(c) In making any determination under Subsection R315-264-94(b) about the use of ground water in the area around the facility the Director shall consider any identification of underground sources of drinking water and exempted aquifers made under 40 CFR 144.7.

R315-264-95. Point of Compliance.

(a) The Director shall specify in the facility permit the point of compliance at which the ground-water protection standard of Section R315-264-92 applies and at which monitoring shall be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

(b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

(1) The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

(2) If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

R315-264-96. Compliance Period.

(a) The Director shall specify in the facility permit the compliance period during which the ground-water protection standard of Section R315-264-92 applies. The compliance period is the number of years equal to the active life of the waste management area, including any waste management activity prior to permitting, and the closure period.

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of Section R315-264-99.

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in Subsection R316-264-96(a), the compliance period is extended until the owner or operator can demonstrate that the ground-water protection standard of Section R315-264-92 has not been exceeded for a period of three consecutive years.

R315-264-97. General Ground-Water Monitoring Requirements.

The owner or operator shall comply with the following requirements for any ground-water monitoring program developed to satisfy Sections R315-264-98 through 100:

(a) The ground-water monitoring system shall consist of a sufficient number of wells, installed at appropriate locations and depths to yield ground-water samples from the uppermost aquifer that:

(1) Represent the quality of background ground water that has not been affected by leakage from a regulated unit;

(i) A determination of background ground-water quality may include sampling of wells that are not hydraulically upgradient of the waste management area where:

(A) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

(B) Sampling at other wells will provide an indication of background ground-water quality that is representative or more representative than that provided by the upgradient wells; and

(2) Represent the quality of ground water passing the point of compliance.

(3) Allow for the detection of contamination when hazardous waste or hazardous constituents have migrated from the waste management area to the uppermost aquifer.

(b) If a facility contains more than one regulated unit, separate ground-water monitoring systems are not required for each regulated unit provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the ground water in the uppermost aquifer.

(c) All monitoring wells shall be cased in a manner that maintains the integrity of the monitoring-well bore hole. This casing shall be screened or perforated and packed with gravel or sand, where necessary, to enable collection of ground-water samples. The annular space, i.e., the space between the bore hole and well casing, above the sampling depth shall be sealed to prevent contamination of samples and the ground water.

(d) The ground-water monitoring program shall include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of ground-water quality below the waste management area. At a minimum the program shall include procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

(e) The ground-water monitoring program shall include sampling and analytical methods that are appropriate for ground-water sampling and that accurately measure hazardous constituents in ground-water samples.

(f) The ground-water monitoring program shall include a determination of the ground-water surface elevation each time ground water is sampled.

(g) In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit will be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to ground water from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit which shall be specified in the unit permit upon approval by the Director. This sampling procedure shall be:

(1) A sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants, or

(2) an alternate sampling procedure proposed by the owner or operator and approved by the Director.

(h) The owner or operator shall specify one of the following statistical methods to be used in evaluating ground-water monitoring data for each hazardous constituent which, upon approval by the Director, shall be specified in the unit permit. The statistical test chosen shall be conducted separately for each hazardous constituent in each well. Where practical quantification limits (pql's) are used in any of the following statistical procedures to comply with Subsection R315-264-97(i)(5), the pql shall be proposed by the owner or operator and approved by the Director. Use of any of the following statistical methods shall be protective of human health and the environment and shall comply with the performance standards outlined in Subsection R315-264-97(i).

(1) A parametric analysis of variance, ANOVA, followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

(2) An analysis of variance, ANOVA, based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

(3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

(4) A control chart approach that gives control limits for each constituent.

(5) Another statistical test method submitted by the owner or operator and approved by the Director.

(i) Any statistical method chosen under Subsection R315-264-97(h) for specification in the unit permit shall comply with the following performance standards, as appropriate:

(1) The statistical method used to evaluate ground-water monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground-water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experimentwise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons shall be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts.

(3) If a control chart approach is used to evaluate ground-water monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the Director if he or she finds it to be protective of human health and the environment.

(4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval shall contain, shall be proposed by the owner or operator and approved by the Director if he or she finds these parameters to be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(5) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit (pql) approved by the Director under Subsection R315-264-97(h) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(6) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(j) Ground-water monitoring data collected in accordance with Subsection R315-264-97(g) including actual levels of constituents shall be maintained in the facility operating record. The Director shall specify in the permit when the data shall be submitted for review.

R315-264-98. Detection Monitoring Program.

An owner or operator required to establish a detection monitoring program under Sections R315-264-90 through 101 shall, at a minimum, discharge the following responsibilities:

(a) The owner or operator shall monitor for indicator parameters, e.g., specific conductance, total organic carbon, or total organic halogen, waste constituents, or reaction products that provide a reliable indication of the presence of hazardous constituents in ground water. The Director shall specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

(1) The types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

(2) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

(3) The detectability of indicator parameters, waste constituents, and reaction products in ground water; and

(4) The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the ground-water background.

(b) The owner or operator shall install a ground-water monitoring system at the compliance point as specified under Section R315-264-95. The ground-water monitoring system shall comply with Subsections R315-264-97(a)(2), (b), and (c).

(c) The owner or operator shall conduct a ground-water monitoring program for each chemical parameter and hazardous constituent specified in the permit pursuant to Subsection R315-264-98(a) in accordance with Section R315-264-97(g). The owner or operator shall maintain a record of ground-water analytical data as measured and in a form necessary for the determination of statistical significance under Subsection R315-264-97(h).

(d) The Director shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit conditions under Subsection R315-264-98(a) in accordance with Subsection R315-264-97(g).

(e) The owner or operator shall determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

(f) The owner or operator shall determine whether there is statistically significant evidence of contamination for any chemical parameter of hazardous constituent specified in the permit pursuant to Subsection R315-264-98(a) at a frequency specified under Subsection R315-264-98(d).

(1) In determining whether statistically significant evidence of contamination exists, the owner or operator shall use the method(s)

specified in the permit under Subsection R315-264-97(h). These method(s) shall compare data collected at the compliance point(s) to the background ground-water quality data.

(2) The owner or operator shall determine whether there is statistically significant evidence of contamination at each monitoring well as the compliance point within a reasonable period of time after completion of sampling. The Director shall specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

(g) If the owner or operator determines pursuant to Subsection R315-264-98(f) that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to Subsection R315-264-98(a) at any monitoring well at the compliance point, he or she shall:

(1) Notify the Director of this finding in writing within seven days. The notification shall indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination;

(2) Immediately sample the ground water in all monitoring wells and determine whether constituents in the list of appendix IX of Rule R315-264 are present, and if so, in what concentration. However, the Director, on a discretionary basis, may allow sampling for a site-specific subset of constituents from the appendix IX list of Rule R315-264 and other representative/related waste constituents.

(3) For any appendix IX compounds found in the analysis pursuant to Subsection R315-264-98(g)(2), the owner or operator may resample within one month or at an alternative site-specific schedule approved by the Director and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample for the compounds in Subsection R315-264-98(g)(2), the hazardous constituents found during this initial appendix IX analysis shall form the basis for compliance monitoring.

(4) Within 90 days, submit to the Director an application for a permit modification to establish a compliance monitoring program meeting the requirements of Section R315-264-99. The application shall include the following information:

(i) An identification of the concentration of any appendix IX constituent detected in the ground water at each monitoring well at the compliance point;

(ii) Any proposed changes to the ground-water monitoring system at the facility necessary to meet the requirements of Section R315-264-99;

(iii) Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of Section R315-264-99;

(iv) For each hazardous constituent detected at the compliance point, a proposed concentration limit under Subsections R315-264-94(a)(1) or (2), or a notice of intent to seek an alternate concentration limit under Subsection R315-264-94(b); and

(5) Within 180 days, submit to the Director:

(i) All data necessary to justify an alternate concentration limit sought under Subsection R315-264-94(b); and

(ii) An engineering feasibility plan for a corrective action program necessary to meet the requirement of Section R315-264-100, unless:

(A) All hazardous constituents identified under Subsection R315-264-98(g)(2) are listed in Table 1 of Section R315-264-94 and their concentrations do not exceed the respective values given in that Table; or

(B) The owner or operator has sought an alternate concentration limit under Subsection R315-264-94(b) for every hazardous constituent identified under Subsection R315-264-98(g)(2).

(6) If the owner or operator determines, pursuant to Subsection R315-264-98(f), that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to Subsection R315-264-98(a) at any monitoring well at the compliance point, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. The owner operator may make a demonstration under Subsection R315-264-98(g) in addition to, or in lieu of, submitting a permit modification application under Subsection R315-264-98(g)(4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in Subsection R315-264-98(g)(4) unless the demonstration made under Subsection R315-264-98(g) successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under Subsection R315-264-98(g), the owner or operator shall:

(i) Notify the Director in writing within seven days of determining statistically significant evidence of contamination at the compliance point that he intends to make a demonstration under Subsection R315-264-98(g);

(ii) Within 90 days, submit a report to the Director which demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

(iii) Within 90 days, submit to the Director an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

(iv) Continue to monitor in accordance with the detection monitoring program established under Section R315-264-98.

(h) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of Section R315-264-98, he or she shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

R315-264-99. Compliance Monitoring Program.

An owner or operator required to establish a compliance monitoring program under Sections R315-264-90 through 101 shall, at a minimum, discharge the following responsibilities:

(a) The owner or operator shall monitor the ground water to determine whether regulated units are in compliance with the ground-water protection standard under Section R315-264-92. The Director shall specify the ground-water protection standard in the

facility permit, including:

(1) A list of the hazardous constituents identified under Section R315-264-93;

(2) Concentration limits under Section R315-264-94 for each of those hazardous constituents;

(3) The compliance point under Section R315-264-95; and

(4) The compliance period under Section R315-264-96.

(b) The owner or operator shall install a ground-water monitoring system at the compliance point as specified under Section R315-264-95. The ground-water monitoring system shall comply with Subsections R315-264-97(a)(2), (b), and (c).

(c) The Director shall specify the sampling procedures and statistical methods appropriate for the constituents and the facility, consistent with Subsections R315-264-97(g) and (h).

(1) The owner or operator shall conduct a sampling program for each chemical parameter or hazardous constituent in accordance with Subsection R315-264-97(g).

(2) The owner or operator shall record ground-water analytical data as measured and in form necessary for the determination of statistical significance under Subsection R315-264-97(h) for the compliance period of the facility.

(d) The owner or operator shall determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, pursuant to Subsection R315-264-99(a), at a frequency specified under Subsection R315-264-99(f).

(1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator shall use the method(s) specified in the permit under Subsection R315-264-97(h). The methods(s) shall compare data collected at the compliance point(s) to a concentration limit developed in accordance with Section R315-264-94.

(2) The owner or operator shall determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The Director shall specify that time period in the facility permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground-water samples.

(e) The owner or operator shall determine the ground-water flow rate and direction in the uppermost aquifer at least annually.

(f) The Director shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with Subsection R315-264-97(g).

(g) Annually, the owner or operator shall determine whether additional hazardous constituents from appendix IX of Rule R315-264, which could possibly be present but are not on the detection monitoring list in the permit, are actually present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in Subsection R315-264-98(f). To accomplish this, the owner or operator shall consult with the Director to determine on a case-by-case basis: which sample collection event during the year will involve enhanced sampling; the number of monitoring wells at the compliance point to undergo enhanced sampling; the number of samples to be collected from each of these monitoring wells; and, the specific constituents from appendix IX of Rule R315-264 for which these samples shall be analyzed. If the enhanced sampling event indicates that appendix IX constituents are present in the ground water that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month or at an alternative site-specific schedule approved by the Director, and repeat the analysis. If the second analysis confirms the presence of new constituents, the owner or operator shall report the concentration of these additional constituents to the Director within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then he or she shall report the concentrations of these additional constituents to the Director within seven days after completion of the initial analysis, and add them to the monitoring list.

(h) If the owner or operator determines pursuant to Subsection R315-264-99(d) that any concentration limits under Section R315-264-94 are being exceeded at any monitoring well at the point of compliance he or she shall:

(1) Notify the Director of this finding in writing within seven days. The notification shall indicate what concentration limits have been exceeded.

(2) Submit to the Director an application for a permit modification to establish a corrective action program meeting the requirements of Section R315-264-100 within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the Director under Subsection R315-264-98(g)(5). The application shall at a minimum include the following information:

(i) A detailed description of corrective actions that will achieve compliance with the ground-water protection standard specified in the permit under Subsection R315-264-99(a); and

(ii) A plan for a ground-water monitoring program that will demonstrate the effectiveness of the corrective action. Such a ground-water monitoring program may be based on a compliance monitoring program developed to meet the requirements of Section R315-264-99.

(i) If the owner or operator determines, pursuant to Subsection R315-264-99(d), that the ground-water concentration limits under Section R315-264-99 are being exceeded at any monitoring well at the point of compliance, he or she may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. In making a demonstration under Subsection R315-264-99(h), the owner or operator shall:

(1) Notify the Director in writing within seven days that he intends to make a demonstration under Subsection R315-264-99(h);

(2) Within 90 days, submit a report to the Director which demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

(3) Within 90 days, submit to the Director an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

(4) Continue to monitor in accord with the compliance monitoring program established under Section R315-264-99.

(j) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of Section

R315-264-99, he shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

R315-264-100. Corrective Action Program.

An owner or operator required to establish a corrective action program under Sections R315-264-90 through 101 shall, at a minimum, discharge the following responsibilities:

(a) The owner or operator shall take corrective action to ensure that regulated units are in compliance with the ground-water protection standard under Section R315-264-92. The Director shall specify the ground-water protection standard in the facility permit, including:

(1) A list of the hazardous constituents identified under Section R315-264-93;

(2) Concentration limits under Section R315-264-94 for each of those hazardous constituents;

(3) The compliance point under Section R315-264-95; and

(4) The compliance period under Section R315-264-96.

(b) The owner or operator shall implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit shall specify the specific measures that will be taken.

(c) The owner or operator shall begin corrective action within a reasonable time period after the ground-water protection standard is exceeded. The Director shall specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit shall specify when the corrective action will begin and such a requirement will operate in lieu of Subsection R315-264-99(i)(2).

(d) In conjunction with a corrective action program, the owner or operator shall establish and implement a ground-water monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under Section R315-264-99 and shall be as effective as that program in determining compliance with the ground-water protection standard under Section R315-264-92 and in determining the success of a corrective action program under Subsection R315-264-100(e), where appropriate.

(e) In addition to the other requirements of Section R315-264-100, the owner or operator shall conduct a corrective action program to remove or treat in place any hazardous constituents under Section R315-264-93 that exceed concentration limits under Section R315-264-94 in groundwater:

(1) Between the compliance point under Section R315-264-95 and the downgradient property boundary; and

(2) Beyond the facility boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Director that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

(3) Corrective action measures under Subsection R315-264-100(e) shall be initiated and completed within a reasonable period of time considering the extent of contamination.

(4) Corrective action measures under Subsection R315-264-100(e) may be terminated once the concentration of hazardous constituents under Section R315-264-93 is reduced to levels below their respective concentration limits under Section R315-264-94.

(f) The owner or operator shall continue corrective action measures during the compliance period to the extent necessary to ensure that the ground-water protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, he shall continue that corrective action for as long as necessary to achieve compliance with the ground-water protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area, including the closure period, if he can demonstrate, based on data from the ground-water monitoring program under Subsection R315-264-100(d), that the ground-water protection standard of Section R315-264-92 has not been exceeded for a period of three consecutive years.

(g) The owner or operator shall report in writing to the Director on the effectiveness of the corrective action program. The owner or operator shall submit these reports annually.

(h) If the owner or operator determines that the corrective action program no longer satisfies the requirements Section R315-264-100, he shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

R315-264-101. Corrective Action for Solid Waste Management Units.

(a) The owner or operator of a facility seeking a permit for the treatment, storage or disposal of hazardous waste shall institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

(b) Corrective action shall be specified in the permit in accordance with Section R315-264-101 and Sections R315-264-550 through 555. The permit shall contain schedules of compliance for such corrective action, where such corrective action cannot be completed prior to issuance of the permit, and assurances of financial responsibility for completing such corrective action.

(c) The owner or operator shall implement corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Director that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner/operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases shall be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action shall be provided.

(d) Section R315-264-101 does not apply to remediation waste management sites unless they are part of a facility subject to a permit for treating, storing or disposing of hazardous wastes that are not remediation wastes.

R315-264-110. Closure and Post-Closure -- Applicability.

Except as Section R315-264-1 provides otherwise:

(a) Sections R315-264-111 through 115, which concern closure, apply to the owners and operators of all hazardous waste management facilities; and

(b) Sections R315-264-116 through 120, which concern post-closure care, apply to the owners and operators of:

(1) All hazardous waste disposal facilities;

(2) Waste piles and surface impoundments from which the owner or operator intends to remove the wastes at closure to the extent that these sections are made applicable to such facilities in Sections R315-264-228 or 258;

(3) Tank systems that are required under Section R315-264-197 to meet the requirements for landfills; and

(4) Containment buildings that are required under Section R315-264-1102 to meet the requirement for landfills.

(c) The Director may replace all or part of the requirements of Sections R315-264-110 through 120, including the unit-specific standards referenced in Subsection R315-264-111(c) applying to a regulated unit, with alternative requirements set out in a permit or in an enforceable document, as defined in Subsection R315-270-1(c)(7), where the Director determines that:

(1) The regulated unit is situated among solid waste management units, or areas of concern, a release has occurred, and both the regulated unit and one or more solid waste management unit(s), or areas of concern, are likely to have contributed to the release; and

(2) It is not necessary to apply the closure requirements of Sections R315-264-110 through 120, and those referenced herein, because the alternative requirements will protect human health and the environment and will satisfy the closure performance standard of Subsections R315-264-111(a) and (b).

R315-264-111. Closure Performance Standard.

The owner or operator shall close the facility in a manner that:

(a) Minimizes the need for further maintenance; and

(b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and

(c) Complies with the closure requirements of Rule R315-264, including, but not limited to, the requirements of Sections R315-264-178, 197, 228, 258, 280, 310, 351, 601 through 603, and 1102.

R315-264-112. Closure plan; Amendment of Plan.

(a) Written plan.

(1) The owner or operator of a hazardous waste management facility shall have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by Subsections R315-264-228(c)(1)(i) and 258(c)(1)(i) to have contingent closure plans. The plan shall be submitted with the permit application, in accordance with Subsection R315-270-14(b)(13), and approved by the Director as part of the permit issuance procedures under Rule R315-124. In accordance with Section R315-270-32, the approved closure plan shall become a condition of any permit.

(2) Plans shall be consistent with Sections R315-264-111 through 115 and the applicable requirements of Sections R315-264-90 through 101, Sections R315-264-178, 197, 228, 258, 280, 310, 351, 601, and 1102. Until final closure is completed and certified in accordance with Section R315-264-115, a copy of the approved plan and all approved revisions shall be furnished to the Director upon request, including requests by mail.

(b) Content of plan. The plan shall identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan shall include, at least:

(1) A description of how each hazardous waste management unit at the facility will be closed in accordance with Section R315-264-111;

(2) A description of how final closure of the facility will be conducted in accordance with Section R315-264-111. The description shall identify the maximum extent of the operations which will be unclosed during the active life of the facility; and

(3) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the off-site hazardous waste management units to be used, if applicable; and

(4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard; and

(5) A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground-water monitoring, leachate collection, and run-on and run-off control; and

(6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule shall include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure

activities which will allow tracking of the progress of partial and final closure. For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover shall be included.

(7) For facilities that use trust funds to establish financial assurance under Section R315-264-143 or Section R315-264-145 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure.

(8) For facilities where the Director has applied alternative requirements at a regulated unit under Subsections R315-264-90(f), 264-110(c), and/or Subsection R315-264-140(d), either the alternative requirements applying to the regulated unit, or a reference to the enforceable document containing those alternative requirements.

(c) Amendment of plan. The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the applicable procedures in Rules R315-124 and 270. The written notification or request shall include a copy of the amended closure plan for review or approval by the Director.

(1) The owner or operator may submit a written notification or request to the Director for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.

(2) The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:

(i) Changes in operating plans or facility design affect the closure plan, or

(ii) There is a change in the expected year of closure, if applicable, or

(iii) In conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.

(iv) The owner or operator requests the Director to apply alternative requirements to a regulated unit under Subsections R315-264-90(f), 264-110(c), and/or Subsection R315-264-140(d).

(3) The owner or operator shall submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator shall request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under Subsection R315-264-228(c)(1)(i) or Subsection R315-264-258(c)(1)(i), shall submit an amended closure plan to the Director no later than 60 days from the date that the owner or operator or Director determines that the hazardous waste management unit shall be closed as a landfill, subject to the requirements of Section R315-264-310, or no later than 30 days from that date if the determination is made during partial or final closure. The Director shall approve, disapprove, or modify this amended plan in accordance with the procedures in Rules R315-124 and 270. In accordance with Section R315-270-32, the approved closure plan shall become a condition of any permit issued.

(4) The Director may request modifications to the plan under the conditions described in Subsection R315-264-112(c)(2). The owner or operator shall submit the modified plan within 60 days of the Director's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the Director shall be approved in accordance with the procedures in Rules R315-124 and 270.

(d) Notification of partial closure and final closure.

(1) The owner or operator shall notify the Director in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, land treatment or landfill unit, or final closure of a facility with such a unit. The owner or operator shall notify the Director in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. The owner or operator shall notify the Director in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

(2) The date when he "expects to begin closure" shall be either:

(i) No later than 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. If the owner or operator of a hazardous waste management unit can demonstrate to the Director that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he has taken all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Director may approve an extension to this one-year limit; or

(ii) For units meeting the requirements of Subsection R315-264-113(d), no later than 30 days after the date on which the hazardous waste management unit receives the known final volume of non-hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator can demonstrate to the Director that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Director may approve an extension to this one-year limit.

(3) If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or final administrative order, to cease receiving hazardous wastes or to close, then the requirements of Subsection R315-264-112(d) do not apply. However, the owner or operator shall close the facility in accordance with the deadlines established in Section R315-264-113.

(e) Removal of wastes and decontamination or dismantling of equipment. Nothing in Section R315-264-112 shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

R315-264-113. Closure; Time Allowed for Closure.

(a) Within 90 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in Subsections R315-264-113(d) and (e), at a hazardous waste management unit or facility, the owner or operator shall treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Director may approve a longer period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

(1)(i) The activities required to comply with R315-264-113 will, of necessity, take longer than 90 days to complete; or

(ii)(A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator complies with Subsections R315-264-113(d) and (e); and

(B) There is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.

(b) The owner or operator shall complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in Subsections R315-264-113(d) and (e), at the hazardous waste management unit or facility. The Director may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

(1)(i) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(ii)(A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator complies with Subsections R315-264-113(d) and (e); and

(B) There is reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable permit requirements.

(c) The demonstrations referred to in Subsections R315-264-113(a)(1) and (b)(1) shall be made as follows:

(1) The demonstrations in Subsection R315-264-113(a)(1) shall be made at least 30 days prior to the expiration of the 90-day period in Subsection R315-264-113(a); and

(2) The demonstration in Subsection R315-264-113(b)(1) shall be made at least 30 days prior to the expiration of the 180-day period in Subsection R315-264-113(b), unless the owner or operator is otherwise subject to the deadlines in Subsection R315-264-113(d).

(d) The Director may allow an owner or operator to receive only non-hazardous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of hazardous wastes at that unit if:

(1) The owner or operator requests a permit modification in compliance with all applicable requirements in Rules R315-270 and 124 and in the permit modification request demonstrates that:

(i) The unit has the existing design capacity as indicated on the part A application to receive non-hazardous wastes; and

(ii) There is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes; and

(iii) The non-hazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under Rule R315-264; and

(iv) Closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

(v) The owner or operator is operating and will continue to operate in compliance with all applicable permit requirements; and

(2) The request to modify the permit includes an amended waste analysis plan, ground-water monitoring and response program, human exposure assessment required under RCRA section 3019, and closure and post-closure plans, and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate, to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year of closure if applicable under Subsection R315-264-112(b)(7), as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes; and

(3) The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes; and

(4) The request to modify the permit and the demonstrations referred to in Subsections R315-264-113(d)(1) and (d)(2) are submitted to the Director no later than 120 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes at the unit, or no later than 90 days after the effective date of this rule in the state in which the unit is located, whichever is later.

(e) In addition to the requirements in Subsection R315-264-113(d), an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in Subsection R315-264-221(c) or (d) shall:

(1) Submit with the request to modify the permit:

(i) A contingent corrective measures plan, unless a corrective action plan has already been submitted under Section R315-264-99; and

(ii) A plan for removing hazardous wastes in compliance with Subsection R315-264-113(e)(2); and

(2) Remove all hazardous wastes from the unit by removing all hazardous liquids, and removing all hazardous sludges to the extent practicable without impairing the integrity of the liner(s), if any.

(3) Removal of hazardous wastes shall be completed no later than 90 days after the final receipt of hazardous wastes. The Director may approve an extension to this deadline if the owner or operator demonstrates that the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.

(4) If a release that is a statistically significant increase, or decrease in the case of pH, over background values for detection monitoring parameters or constituents specified in the permit or that exceeds the facility's ground-water protection standard at the point of compliance, if applicable, is detected in accordance with the requirements in Sections R315-264-90 through 101, the owner or operator of the unit:

(i) Shall implement corrective measures in accordance with the approved contingent corrective measures plan required by Subsection R315-264-113(e)(1) no later than one year after detection of the release, or approval of the contingent corrective measures plan, whichever is later;

(ii) May continue to receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and

(iii) May be required by the Director to implement corrective measures in less than one year or to cease the receipt of wastes until corrective measures have been implemented if necessary to protect human health and the environment.

(5) During the period of corrective action, the owner or operator shall provide annual reports to the Director describing the progress of the corrective action program, compile all ground-water monitoring data, and evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

(6) The Director may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in Subsection R315-264-113(e)(4), or fails to make substantial progress in implementing corrective action and achieving the facility's ground-water protection standard or background levels if the facility has not yet established a ground-water protection standard.

(7) If the owner or operator fails to implement corrective measures as required in Subsection R315-264-113(e)(4), or if the Director determines that substantial progress has not been made pursuant to Subsection R315-264-113(e)(6) he shall:

(i) Notify the owner or operator in writing that the owner or operator shall begin closure in accordance with the deadlines in Subsections R315-264-113(a) and (b) and provide a detailed statement of reasons for this determination, and

(ii) Provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the decision no later than 20 days after the date of the notice.

(iii) If the Director receives no written comments, the decision shall become final five days after the close of the comment period. The Director shall notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, shall be submitted within 15 days of the final notice and that closure shall begin in accordance with the deadlines in Subsections R315-264-113 (a) and (b).

(iv) If the Director receives written comments on the decision, he shall make a final decision within 30 days after the end of the comment period, and provide the owner or operator in writing and the public through a newspaper notice, a detailed statement of reasons for the final decision. If the Director determines that substantial progress has not been made, closure shall be initiated in accordance with the deadlines in Subsections R315-264-113(a) and (b).

(v) The final determinations made by the Director under Subsections R315-264-113(e)(7)(iii) and (iv) are not subject to administrative appeal.

R315-264-114. Disposal or Decontamination of Equipment, Structures and Soils.

During the partial and final closure periods, all contaminated equipment, structures and soils shall be properly disposed of or decontaminated unless otherwise specified in Sections R315-264-197, 228, 258, 280 or 310. By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and shall handle that waste in accordance with all applicable requirements of Rule R315-262.

R315-264-115. Certification of Closure.

Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of the completion of final closure, the owner or operator shall submit to the Director, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification shall be signed by the owner or operator and by a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification shall be furnished to the Director upon request until he releases the owner or operator from the financial assurance requirements for closure under Subsection R315-264-143(i).

R315-264-116. Survey Plat.

No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Director, a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat shall be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, shall contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable Sections of R315-264-110 through 120.

R315-264-117. Post-Closure Care and Use of Property.

(a)(1) Post-closure care for each hazardous waste management unit subject to the requirements of Sections R315-264-117 through 120 shall begin after completion of closure of the unit and continue for 30 years after that date and shall consist of at least the following:

(i) Monitoring and reporting in accordance with the requirements of Sections R315-264-90 through 101, 220 through 232, 250 through 254, 256 through 259, 270 through 283, 300 through 317, and 600 through 603; and

(ii) Maintenance and monitoring of waste containment systems in accordance with the requirements of Sections R315-264-90 through 101, 220 through 232, 250 through 254, 256 through 259, 270 through 283, 300 through 317, and 600 through 603.

(2) Any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period for a particular unit, the Director may, in accordance with the permit modification procedures in Rules R315-124 and 270:

(i) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if he finds that the reduced period is sufficient to protect human health and the environment, e.g., leachate or ground-water monitoring results, characteristics of the hazardous wastes, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure; or

(ii) Extend the post-closure care period applicable to the hazardous waste management unit or facility if he finds that the extended period is necessary to protect human health and the environment, e.g., leachate or ground-water monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment.

(b) The Director may require, at partial and final closure, continuation of any of the security requirements of Section R315-264-14 during part or all of the post-closure period when:

(1) Hazardous wastes may remain exposed after completion of partial or final closure; or

(2) Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure shall never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the Director finds that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) All post-closure care activities shall be in accordance with the provisions of the approved post-closure plan as specified in Section R315-264-118.

R315-264-118. Post-Closure Plan; Amendment of Plan.

(a) Written Plan. The owner or operator of a hazardous waste disposal unit shall have a written post-closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous wastes at partial or final closure are required by Subsections R315-264-228(c)(1)(ii) and 264-258(c)(1)(ii) to have contingent post-closure plans. Owners or operators of surface impoundments and waste piles not otherwise required to prepare contingent post-closure plans under Subsections R315-264-228(c)(1)(ii) and 264-258(c)(1)(ii) shall submit a post-closure plan to the Director within 90 days from the date that the owner or operator or Director determines that the hazardous waste management unit shall be closed as a landfill, subject to the requirements of Sections R315-264-117 through 120. The plan shall be submitted with the permit application, in accordance with Subsection R315-270-14(b)(13), and approved by the Director as part of the permit issuance procedures under Rule R315-124. In accordance with Section R315-270-32, the approved post-closure plan shall become a condition of any RCRA permit issued.

(b) For each hazardous waste management unit subject to the requirements Section R315-264-118, the post-closure plan shall identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:

(1) A description of the planned monitoring activities and frequencies at which they will be performed to comply with Sections R315-264-90 through 101, 220 through 232, 250 through 259, 270 through 283, 300 through 317, and 600 through 603 during the post-closure care period; and

(2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(i) The integrity of the cap and final cover or other containment systems in accordance with the requirements of Sections R315-264-90 through 101, 220 through 232, 250 through 259, 270 through 283, 300 through 317, and 600 through 603; and

(ii) The function of the monitoring equipment in accordance with the requirements of Sections R315-264-90 through 101, 220 through 232, 250 through 259, 270 through 283, 300 through 317, and 600 through 603; and

(3) The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

(4) For facilities where the Director has applied alternative requirements at a regulated unit under Subsections R315-264-90(f), 264-110(c), and/or 264-140(d), either the alternative requirements that apply to the regulated unit, or a reference to the enforceable document containing those requirements.

(c) Until final closure of the facility, a copy of the approved post-closure plan shall be furnished to the Director upon request, including request by mail. After final closure has been certified, the person or office specified in Subsection R315-264-118(b)(3) shall keep the approved post-closure plan during the remainder of the post-closure period.

(d) Amendment of plan. The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved post-closure plan in accordance with the applicable requirements in Rules R315-124 and 270. The written notification or request shall include a copy of the amended post-closure plan for review or approval by the Director.

(1) The owner or operator may submit a written notification or request to the Director for a permit modification to amend the post-closure plan at any time during the active life of the facility or during the post-closure care period.

(2) The owner or operator shall submit a written notification of or request for a permit modification to authorize a change in the approved post-closure plan whenever:

(i) Changes in operating plans or facility design affect the approved post-closure plan, or

(ii) There is a change in the expected year of final closure, if applicable, or

(iii) Events which occur during the active life of the facility, including partial and final closures, affect the approved post-closure plan.

(iv) The owner or operator requests the Director to apply alternative requirements to a regulated unit under Subsections R315-264-90(f), 264-110(c), and/or 264-140(d).

(3) The owner or operator shall submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to submit a contingent post-closure plan under Subsections R315-264-228(c)(1)(ii) 258(c)(1)(ii) shall submit a post-closure plan to the Director no later than 90 days after the date that the owner or operator or Director determines that the hazardous waste management unit shall be closed as a landfill, subject to the requirements of Section R315-264-310. The Director shall approve, disapprove or modify this plan in accordance with the procedures in Rules R315-124 and 270. In accordance with Section R315-270-32, the approved post-closure plan shall become a permit condition.

(4) The Director may request modifications to the plan under the conditions described in Subsection R315-264-118(d)(2). The owner or operator shall submit the modified plan no later than 60 days after the Director's request, or no later than 90 days if the unit is a surface impoundment or waste pile not previously required to prepare a contingent post-closure plan. Any modifications requested by the Director shall be approved, disapproved, or modified in accordance with the procedures in Rules R315-124 and 270.

R315-264-119. Post-Closure Notices.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Director a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator shall identify the type, location, and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.

(b) Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator shall:

(1) Record, in accordance with State law, a notation on the deed to the facility property-or on some other instrument which is normally examined during title search-that will in perpetuity notify any potential purchaser of the property that:

(i) The land has been used to manage hazardous wastes; and

(ii) Its use is restricted under Sections R315-264-110 through 120; and

(iii) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by Section R315-264-116 and Subsection R315-264-119(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Director; and

(2) Submit a certification, signed by the owner or operator, that he has recorded the notation specified in Subsection R315-264-119(b)(1), including a copy of the document in which the notation has been placed, to the Director.

(c) If the owner or operator or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, he shall request a modification to the post-closure permit in accordance with the applicable requirements in Rules R315-124 and 270. The owner or operator shall demonstrate that the removal of hazardous wastes will satisfy the criteria of Subsection R315-264-117(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Rules R315-260 through 266, 268, 270, and 273. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the Director approve either:

(1) The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

(2) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

R315-264-120. Certification of Completion of Post-Closure Care.

No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator shall submit to the Director, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification shall be signed by the owner or operator and a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification shall be furnished to the Director upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under Subsection R315-264-145(i).

R315-264-140. Financial Requirements -- Applicability.

(a) The requirements of Sections R315-264-142, 143, 147 through 151 apply to owners and operators of all hazardous waste facilities, except as provided otherwise in Section R315-264-140 or in Section R315-264-1.

(b) The requirements of Sections R315-264-144 and 145 apply only to owners and operators of:

(1) Disposal facilities;

(2) Piles, and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these sections are made applicable to such facilities in Sections R315-264-228 and 258;

(3) Tank systems that are required under Section R315-264-197 to meet the requirements for landfills; and

(4) Containment buildings that are required under Section R315-264-1102 to meet the requirements for landfills.

(c) States and the Federal government are exempt from the requirements of Sections R315-264-140 through 151.

(d) The Director may replace all or part of the requirements of Sections R315-264-140 through 151 applying to a regulated unit with alternative requirements for financial assurance set out in the permit or in an enforceable document, as defined in Subsection R315-270-1(c)(7), where the Director:

(1) Prescribes alternative requirements for the regulated unit under Subsection R315-264-90(f) and/or Subsection R315-264-110(c); and

(2) Determines that it is not necessary to apply the requirements of Sections R315-264-140 through 151 because the alternative financial assurance requirements will protect human health and the environment.

R315-264-141. Definitions of Terms as Used in Sections R315-264-140 through 151.

(a) Closure plan means the plan for closure prepared in accordance with the requirements of Section R315-264-112.

(b) Current closure cost estimate means the most recent of the estimates prepared in accordance with Subsections R315-264-142(a), (b), and (c).

(c) Current post-closure cost estimate means the most recent of the estimates prepared in accordance with Subsection R315-264-144(a), (b), and (c).

(d) Parent corporation means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(e) Post-closure plan means the plan for post-closure care prepared in accordance with the requirements of Sections R315-264-117 through 120.

(f) The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

Assets means all existing and all probable future economic benefits obtained or controlled by a particular entity.

Current assets means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

Current liabilities means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

Current plugging and abandonment cost estimate means the most recent of the estimates prepared in accordance with 40 CFR 144.62(a), (b), and (c).

Independently audited refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

Liabilities means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

Net working capital means current assets minus current liabilities.

Net worth means total assets minus total liabilities and is equivalent to owner's equity.

Tangible net worth means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(g) In the liability insurance requirements the terms bodily injury and property damage shall have the meanings given these terms by applicable State law. However, these terms do not include those liabilities which, consistent with standard industry practices, are excluded from coverage in liability policies for bodily injury and property damage. The Director intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

Accidental occurrence means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

Legal defense costs means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

Nonsudden accidental occurrence means an occurrence which takes place over time and involves continuous or repeated exposure.

Sudden accidental occurrence means an occurrence which is not continuous or repeated in nature.

(h) Substantial business relationship means the extent of a business relationship necessary under applicable State law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" shall arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the Director.

R315-264-142. Cost Estimate for Closure.

(a) The owner or operator shall have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance

with the requirements in Sections R315-264-111 through 115 and applicable closure requirements in Sections R315-264-178, 197, 228, 258, 280, 310, 351, 601 through 603, and 1102.

(1) The estimate shall equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan, see Subsection R315-264-112(b); and

(2) The closure cost estimate shall be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. See definition of parent corporation in Subsection R315-264-141(d). The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

(3) The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes if applicable under Subsection R315-264-113(d), facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

(4) The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes if applicable under Subsection R315-264-113(d), that might have economic value.

(b) During the active life of the facility, the owner or operator shall adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section R315-264-143. For owners and operators using the financial test or corporate guarantee, the closure cost estimate shall be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Director as specified in Subsection R315-264-143(f)(3). The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in Subsections R315-264-142(b)(1) and (2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the closure cost estimate no later than 30 days after the Director has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate shall be adjusted for inflation as specified in Subsection R315-264-142(b).

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with Subsection R315-264-142(a) and (c) and, when this estimate has been adjusted in accordance with Subsection R315-264-142(b), the latest adjusted closure cost estimate

R315-264-143. Financial Assurance for Closure.

An owner or operator of each facility shall establish financial assurance for closure of the facility. He shall choose from the options as specified in Subsections R315-264-143(a) through (f).

(a) Closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by establishing a closure trust fund which conforms to the requirements of Subsection R315-264-143(a) and submitting an originally signed duplicate of the trust agreement to the Director. An owner or operator of a new facility shall submit the originally signed duplicate of the trust agreement to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement shall be identical to the wording specified in Subsection R315-264-151(a)(1), and the trust agreement shall be accompanied by a formal certification of acknowledgment, for example, see Subsection R315-264-151(a)(2). Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current closure cost estimate covered by the agreement.

(3) Payments into the trust fund shall be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the closure trust fund shall be made as follows:

(i) For a new facility, the first payment shall be made before the initial receipt of hazardous waste for treatment, storage, or disposal. A receipt from the trustee for this payment shall be submitted by the owner or operator to the Director before this initial receipt of hazardous waste. The first payment shall be at least equal to the current closure cost estimate, except as provided in Subsection R315-264-143(g), divided by the number of years in the pay-in period. Subsequent payments shall be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment shall be determined by this formula:

Next Payment = (CE-CV)/Y

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(ii) If an owner or operator establishes a trust fund as specified in 40 CFR 265.143(a), which is adopted by reference; and the value of that trust fund is less than the current closure cost estimate when a permit is awarded for the facility, the amount of the current closure cost estimate still to be paid into the trust fund shall be paid in over the pay-in period as defined in Subsection R315-264-143(a)(3). Payments shall continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to Rule R315-265. The amount of each payment shall be determined by this formula:

Next Payment = (CE-CV)/Y

where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in

the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he shall maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in Subsection R315-264-143(a)(3).

(5) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in Section R315-264-143 or in 40 CFR 265.143, which is adopted by reference, his first payment shall be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of Section R315-264-143 and 40 CFR 265.143(a), which is adopted by reference; as applicable.

(6) After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in Section R315-264-143 to cover the difference.

(7) If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Director for release of the amount in excess of the current closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in Section R315-264-143 for all or part of the trust fund, he may submit a written request to the Director for release of the amount in excess of the current closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in Subsection R315-264-143(a)(7) or (8), the Director shall instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

(10) After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Director. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for partial or final closure activities, the Director shall instruct the trustee to make reimbursements in those amounts as the Director specifies in writing, if the Director determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with Subsection R315-264-143(i) that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Director does not instruct the trustee to make such reimbursements, he shall provide the owner or operator with a detailed written statement of reasons.

(11) The Director shall agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(b) Surety bond guaranteeing payment into a closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by obtaining a surety bond which conforms to the requirements of Subsection R315-264-143(b) and submitting the bond to the Director. An owner or operator of a new facility shall submit the bond to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond shall be effective before this initial receipt of hazardous waste. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements Section R315-264-143 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements specified in Subsection R315-264-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of Section R315-264-143, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-264-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Director becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in Section R315-264-143, and obtain the Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform

as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current closure cost estimate, except as provided in Subsection R315-264-143(g).

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-143 to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Director has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in Section R315-264-143.

(c) Surety bond guaranteeing performance of closure.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by obtaining a surety bond which conforms to the requirements of Subsection R315-264-143(c) and submitting the bond to the Director. An owner or operator of a new facility shall submit the bond to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The bond shall be effective before this initial receipt of hazardous waste. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(c).

(3) The owner or operator who uses a surety bond to satisfy the requirements Section R315-264-143 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust shall meet the requirements specified in Subsection R315-264-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-264-143, the following are not required by Section R315-264-143:

(A) Payments into the trust fund as specified in Subsection R315-264-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) Perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so; or

(ii) Provide alternate financial assurance as specified in Section R315-264-143, and obtain the Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the approved closure plan and other permit requirements when required to do so, under the terms of the bond the surety shall perform final closure as guaranteed by the bond or shall deposit the amount of the penal sum into the standby trust fund.

(6) The penal sum of the bond shall be in an amount at least equal to the current closure cost estimate.

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-143. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Director has given prior written consent. The Director shall provide such written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(10) The surety shall not be liable for deficiencies in the performance of closure by the owner or operator after the Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(d) Closure letter of credit.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by obtaining an irrevocable standby letter of credit which conforms to the requirements of Subsection R315-264-143(d) and submitting the letter to the Director. An owner or operator of a new facility shall submit the letter of credit to the Director at least 60 days before the date on which hazardous waste is first received

for treatment, storage, or disposal. The letter of credit shall be effective before this initial receipt of hazardous waste. The issuing institution shall be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-264-151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-264-143 shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director shall be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements of the trust fund specified in Subsection R315-264-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-264-143, the following are not required by Rule R315-264:

(A) Payments into the trust fund as specified in Subsection R315-264-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for closure of the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The letter of credit shall provide that the expiration date shall be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days shall begin on the date when both the owner or operator and the Director have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current closure cost estimate, except as provided in Subsection R315-264-143(g).

(7) Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-143 to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(8) Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform final closure in accordance with the closure plan and other permit requirements when required to do so, the Director may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in Section R315-264-143 and obtain written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice from issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Director shall draw on the letter of credit. The Director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Director shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in Section R315-264-143 and obtain written approval of such assurance from the Director.

(10) The Director shall return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(e) Closure insurance.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by obtaining closure insurance which conforms to the requirements of this Subsection R315-264-143(e) and submitting a certificate of such insurance to the Director. An owner or operator of a new facility shall submit the certificate of insurance to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance shall be effective before this initial receipt of hazardous waste. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(e).

(3) The closure insurance policy shall be issued for a face amount at least equal to the current closure cost estimate, except as provided in Subsection R315-264-143(g). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer shall not change the face amount, although the insurer's future liability shall be lowered by the amount of the payments.

(4) The closure insurance policy shall guarantee that funds shall be available to close the facility whenever final closure occurs. The policy shall also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Director, to such party or parties as the Director specifies.

(5) After beginning partial or final closure, an owner or operator or any other person authorized to conduct closure may request reimbursements for closure expenditures by submitting itemized bills to the Director. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Director shall instruct the insurer to make

reimbursements in such amounts as the Director specifies in writing, if the Director determines that the partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the Director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with Subsection R315-264-143(i), that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Director does not instruct the insurer to make such reimbursements, he shall provide the owner or operator with a detailed written statement of reasons.

(6) The owner or operator shall maintain the policy in full force and effect until the Director consents to termination of the policy by the owner or operator as specified in Subsection R315-264-143(e)(10). Failure to pay the premium, without substitution of alternate financial assurance as specified in Section R315-264-143, shall constitute a significant violation of these regulations, warranting such remedy as the Director deems necessary. Such violation shall be deemed to begin upon receipt by the Director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Director and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy shall remain in full force and effect in the event that on or before the date of expiration:

(i) The Director deems the facility abandoned; or

(ii) The permit is terminated or revoked or a new permit is denied; or

(iii) Closure is ordered by the Director or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-143 to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(10) The Director shall give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(f) Financial test and corporate guarantee for closure.

(1) An owner or operator may satisfy the requirements of Section R315-264-143 by demonstrating that he passes a financial test as specified in Subsection R315-264-143(f). To pass this test the owner or operator shall meet the criteria of either Subsections R315-264-143(f)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in Subsection R315-264-143(f)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, Subsection R315-264-151(f). The phrase "current plugging and abandonment cost estimates" as used in Subsection R315-264-143(f)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, 40 CFR 144.70(f).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-264-151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility shall submit the items specified in Subsection R315-264-143(f)(3) to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(5) After the initial submission of items specified in Subsection R315-264-143(f)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in Subsection R315-264-143(f)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-264-143(f)(1), he shall send notice to the Director of intent to establish alternate financial assurance as specified in Section R315-264-143. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of Subsection R315-264-143(f)(1), require reports of financial condition at any time from the owner or operator in addition to those specified in Subsection R315-264-143(f)(3). If the Director finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of Subsection R315-264-143(f)(1), the owner or operator shall provide alternate financial assurance as specified in Section R315-264-143 within 30 days after notification of such a finding.

(8) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-264-143(f)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Director shall evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in Section R315-264-143 within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in Subsection R315-264-143(f)(3) when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-143 in accordance with Subsection R315-264-143(i).

(10) An owner or operator may meet the requirements of Section R315-264-143 by obtaining a written guarantee. The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsection R315-264-143(f)(1) through (8) and shall comply with the terms of the guarantee. The wording of the guarantee shall be identical to the wording specified in Subsection R315-264-151(h). The certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-264-143(f)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter shall describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee shall provide that:

(i) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the closure plan and other permit requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Subsection R315-264-143(a) in the name of the owner or operator.

(ii) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in Section R315-264-143 and obtain the written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor shall provide such alternative financial assurance in the name of the owner or operator.

(g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of Section R315-264-143 by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms shall be as specified in Subsections R315-264-143(a), (b), (d), and (e), respectively, except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Director may use any or all of the mechanisms to provide for closure of the facility.

(h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in Section R315-264-143 to meet the requirements of Section R315-264-143 for more than one facility. Evidence of financial assurance submitted to the Director shall include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for closure assured by the mechanism. If the facilities covered by the mechanism are in more than one State, identical evidence of financial assurance shall be submitted to and maintained with the State Agency regulating hazardous waste in states other than

Utah or with the appropriate Regional Administrator if the facility is located in an unauthorized State. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) Release of the owner or operator from the requirements of Section R315-264-143. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that final closure has been completed in accordance with the approved closure plan, the Director shall notify the owner or operator in writing that he is no longer required by Section R315-264-143 to maintain financial assurance for final closure of the facility, unless the Director has reason to believe that final closure has not been in accordance with the approved closure plan. The Director shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan.

R315-264-144. Cost Estimate for Post-Closure Care.

(a) The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, or landfill unit, or of a surface impoundment or waste pile required under Sections R315-264-228 and 258 to prepare a contingent closure and post-closure plan, shall have a detailed written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in Sections R315-264-117 through 120, 228, 258, 280, 310, and 603.

(1) The post-closure cost estimate shall be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. See definition of parent corporation in Subsection R315-264-141(d).

(2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Section R315-264-117.

(b) During the active life of the facility, the owner or operator shall adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section R315-264-145. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate shall be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the Director as specified in Subsection R315-264-145(f)(5). The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business as specified in Subsections R315-264-145(b)(1) and (2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the post-closure cost estimate within 30 days after the Director has approved the request to modify the post-closure plan, if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate shall be adjusted for inflation as specified in Subsection R315-264-144(b).

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: The latest post-closure cost estimate prepared in accordance with Subsection R315-264-144(a) and (c) and, when this estimate has been adjusted in accordance with Subsection R315-264-144(b), the latest adjusted post-closure cost estimate.

R315-264-145. Financial Assurance for Post-Closure Care.

The owner or operator of a hazardous waste management unit subject to the requirements of Section R315-264-144 shall establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the regulation, whichever is later. He shall choose from the following options:

(a) Post-closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-264-144 by establishing a post-closure trust fund which conforms to the requirements of Subsection R315-264-145(a) and submitting an originally signed duplicate of the trust agreement to the Director. An owner or operator of a new facility shall submit the originally signed duplicate of the trust agreement to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(2) The wording of the trust agreement shall be identical to the wording specified in Subsection R315-264-151(a)(1), and the trust agreement shall be accompanied by a formal certification of acknowledgment, for example, see Subsection R315-264-151(a)(2). Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

(3) Payments into the trust fund shall be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund shall be made as follows:

(i) For a new facility, the first payment shall be made before the initial receipt of hazardous waste for disposal. A receipt from the trustee for this payment shall be submitted by the owner or operator to the Director before this initial receipt of hazardous waste. The first payment shall be at least equal to the current post-closure cost estimate, except as provided in Subsection R315-264-145(g), divided by the number of years in the pay-in period. Subsequent payments shall be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment shall be determined by this formula:

Next payment = (CE-CV)/Y

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(ii) If an owner or operator establishes a trust fund as specified in 40 CFR 265.145(a); which is adopted by reference, and the value of that trust fund is less than the current post-closure cost estimate when a permit is awarded for the facility, the amount of the current post-closure cost estimate still to be paid into the fund shall be paid in over the pay-in period as defined in Subsection R315-264-145(a)(3). Payments shall continue to be made no later than 30 days after each anniversary date of the first payment made pursuant to R315-265. The amount of each payment shall be determined by this formula:

Next payment = (CE-CV)/Y

where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, he shall maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in Subsection R315-264-145(a)(3).

(5) If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in Section R315-264-145 or in 40 CFR 265.145, which is adopted by reference; his first payment shall be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of Subsection R315-264-145(a) and 40 CFR 265.145(a), which is adopted by reference; as applicable.

(6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in Section R315-264-145 to cover the difference.

(7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Director for release of the amount in excess of the current post-closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in Section R315-264-145 for all or part of the trust fund, he may submit a written request to the Director for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in Subsection R315-264-145(a)(7) or (8), the Director shall instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

(10) During the period of post-closure care, the Director may approve a release of funds if the owner or operator demonstrates to the Director that the value of the trust fund exceeds the remaining cost of post-closure care.

(11) An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure care expenditures by submitting itemized bills to the Director. Within 60 days after receiving bills for post-closure care activities, the Director shall instruct the trustee to make reimbursements in those amounts as the Director specifies in writing, if the Director determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Director does not instruct the trustee to make such reimbursements, he shall provide the owner or operator with a detailed written statement of reasons.

(12) The Director shall agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(b) Surety bond guaranteeing payment into a post-closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by obtaining a surety bond which conforms to the requirements of Subsection R315-264-145(b) and submitting the bond to the Director. An owner or operator of a new facility shall submit the bond to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The bond shall be effective before this initial receipt of hazardous waste. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements Section R315-264-145 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements specified in Subsection R315-264-145(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements Section R315-264-145, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-264-145(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Director becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in Section R315-264-145, and obtain the Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current post-closure cost estimate, except as provided in Subsection R315-264-145(g).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-145 to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Director has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in Section R315-264-145.

(c) Surety bond guaranteeing performance of post-closure care.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by obtaining a surety bond which conforms to the requirements of Subsection R315-264-145(c) and submitting the bond to the Director. An owner or operator of a new facility shall submit the bond to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The bond shall be effective before this initial receipt of hazardous waste. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(c).

(3) The owner or operator who uses a surety bond to satisfy the requirements of Section R315-264-145 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder shall be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements specified in Subsection R315-264-145(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-264-145, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-264-145(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator shall:

(i) Perform post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or

(ii) Provide alternate financial assurance as specified in Section R315-264-145, and obtain the Director's written approval of the assurance provided, within 90 days of receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, under the terms of the bond the surety shall perform post-closure care in accordance with the post-closure plan and other permit requirements or shall deposit the amount of the penal sum into the standby trust fund.

(6) The penal sum of the bond shall be in an amount at least equal to the current post-closure cost estimate.

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-145. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(8) During the period of post-closure care, the Director may approve a decrease in the penal sum if the owner or operator demonstrates to the Director that the amount exceeds the remaining cost of post-closure care.

(9) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(10) The owner or operator may cancel the bond if the Director has given prior written consent. The Director shall provide such

written consent when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(11) The surety shall not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(d) Post-closure letter of credit.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by obtaining an irrevocable standby letter of credit which conforms to the requirements of Subsection R315-264-145(d) and submitting the letter to the Director. An owner or operator of a new facility shall submit the letter of credit to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit shall be effective before this initial receipt of hazardous waste. The issuing institution shall be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State agency.

(2) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-264-151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-264-145 shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director shall be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements of the trust fund specified in Subsection R315-264-145(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-264-145, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-264-145(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the EPA Identification Number, name, and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The letter of credit shall provide that the expiration date shall be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days shall begin on the date when both the owner or operator and the Director have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current post-closure cost estimate, except as provided in Subsection R315-264-145(g).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-145 to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(8) During the period of post-closure care, the Director may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Director that the amount exceeds the remaining cost of post-closure care.

(9) Following a final administrative determination pursuant to section 3008 of RCRA that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Director may draw on the letter of credit.

(10) If the owner or operator does not establish alternate financial assurance as specified in Section R315-264-145 and obtain written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Director shall draw on the letter of credit. The Director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Director shall draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in Section R315-264-145 and obtain written approval of such assurance from the Director.

(11) The Director shall return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(e) Post-closure insurance.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by obtaining post-closure insurance which conforms to the requirements of Subsection R315-264-145(e) and submitting a certificate of such insurance to the Director. An owner or operator of a new facility shall submit the certificate of insurance to the Director at least 60 days before the date on which hazardous waste is first received for disposal. The insurance shall be effective before this initial receipt of hazardous waste. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(e).

(3) The post-closure insurance policy shall be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in Subsection R315-264-145(g). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer shall not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The post-closure insurance policy shall guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy shall also guarantee that once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Director, to such party or parties as the Director specifies.

(5) An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure care expenditures by submitting itemized bills to the Director. Within 60 days after receiving bills for post-closure care activities, the Director shall instruct the insurer to make reimbursements in those amounts as the Director specifies in writing, if the Director determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Director does not instruct the insurer to make such reimbursements, he shall provide the owner or operator with a detailed written statement of reasons.

(6) The owner or operator shall maintain the policy in full force and effect until the Director consents to termination of the policy by the owner or operator as specified in Subsection R315-264-145(e)(11). Failure to pay the premium, without substitution of alternate financial assurance as specified in Section R315-264-145, shall constitute a significant violation of these regulations, warranting such remedy as the Director deems necessary. Such violation shall be deemed to begin upon receipt by the Director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Director and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy shall remain in full force and effect in the event that on or before the date of expiration:

(i) The Director deems the facility abandoned; or

(ii) The permit is terminated or revoked or a new permit is denied; or

(iii) Closure is ordered by the Director or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11, Bankruptcy, U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-264-145 to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer shall thereafter annually increase the face amount of the policy. Such increase shall be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

(11) The Director shall give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(f) Financial test and corporate guarantee for post-closure care.

(1) An owner or operator may satisfy the requirements of Section R315-264-145 by demonstrating that he passes a financial test as specified in Subsection R315-264-145(f). To pass this test the owner or operator shall meet the criteria of either Subsection R315-264-145(f)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in Subsection R315-264-145(f)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, Subsection R315-264-151(f). The phrase "current plugging and abandonment cost estimates" as used in Subsection R315-264-145(f)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, 40 CFR 144.70(f).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-264-151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility shall submit the items specified in Subsection R315-264-145(f)(3) to the Director at least 60 days before the date on which hazardous waste is first received for disposal.

(5) After the initial submission of items specified in Subsection R315-264-145(f)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in Subsection R315-264-145(f)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-264-145(f)(1), he shall send notice to the Director of intent to establish alternate financial assurance as specified in Section R315-264-145. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of Subsection R315-264-145(f)(1), require reports of financial condition at any time from the owner or operator in addition to those specified in Subsection R315-264-145(f)(3). If the Director finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of Subsection R315-264-145(f)(1), the owner or operator shall provide alternate financial assurance as specified in Section R315-264-145 within 30 days after notification of such a finding.

(8) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-264-145(f)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Director shall evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in Section R315-264-145 within 30 days after notification of the disallowance.

(9) During the period of post-closure care, the Director may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Director that the amount of the cost estimate exceeds the remaining cost of post-closure care.

(10) The owner or operator is no longer required to submit the items specified in Subsection R315-264-145(f)(3) when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-264-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-264-145 in accordance with Subsection R315-264-145(i).

(11) An owner or operator may meet the requirements of Section R315-264-145 by obtaining a written guarantee. The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsections R315-264-145(f)(1) through (9) and shall comply with the terms of the guarantee. The wording of the guarantee shall be identical to the wording specified in Subsection R315-264-151(h). A certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-264-145(f)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter shall describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee shall provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Subsection R315-264-145(a) in the name of the owner or operator.

(ii) The corporate guarantee shall remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in Section R315-264-145 and obtain the written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor shall provide such alternate financial assurance in the name of the owner or operator.

(g) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of Section R315-264-145 by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, and insurance. The mechanisms shall be as specified in Subsections R315-264-145(a), (b), (d), and (e), respectively, except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Director may use any or all of the mechanisms to provide for post-closure care of the facility.

(h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in Section R315-264-145 to meet the requirements of Section R315-264-145 for more than one facility. Evidence of financial assurance submitted to the Director shall include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. If the facilities covered by the mechanism are in more than one State, identical evidence of financial assurance shall be submitted to and maintained with the State Agency regulating hazardous waste in states other than Utah or with the appropriate Regional Administrator if the facility is located in an unauthorized State. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(i) Release of the owner or operator from the requirements of Section R315-264-145. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Director shall notify the owner or operator that he is no longer required to maintain financial assurance for post-closure of that unit, unless the Director has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The Director shall provide the owner or operator a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

R315-264-146. Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care.

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both Sections R315-264-143 and 145. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure and of post-closure care.

R315-264-147. Liability Requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in Subsections R315-264-147(a)(1), (2), (3), (4), (5), or (6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Subsection R315-264-147(a).

(i) Each insurance policy shall be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-264-151(i). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(j). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the Director. If requested by a Director, the owner or operator shall provide a signed duplicate original of the insurance policy. An owner or operator of a new facility shall submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance shall be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements Section R315-264-146 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-264-147(f) and (g).

(3) An owner or operator may meet the requirements of Section R315-264-147 by obtaining a letter of credit for liability coverage as specified in Subsection R315-264-147(h).

(4) An owner or operator may meet the requirements Section R315-264-146 by obtaining a surety bond for liability coverage as specified in Subsection R315-264-147(i).

(5) An owner or operator may meet the requirements Section R315-264-146 by obtaining a trust fund for liability coverage as

specified in Subsection R315-264-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by Section R315-264-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under Subsection R315-264-147(a), the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the Director in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in Subsections R315-264-147(a)(1) through (a)(6); or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under Subsections R315-264-147(a)(1) through (a)(6); or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-264-147(a)(1) through (a)(6).

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a surface impoundment, landfill, land treatment facility, or disposal miscellaneous unit that is used to manage hazardous waste, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who shall meet the requirements Section R315-264-147 may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences shall maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in Subsections R315-264-147(b)(1), (2), (3), (4), (5), or (6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Subsection R315-264-147(b).

(i) Each insurance policy shall be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-264-151(i). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(j). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the Director. If requested by a Director, the owner or operator shall provide a signed duplicate original of the insurance policy. An owner or operator of a new facility shall submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance shall be effective before this initial receipt of hazardous waste.

(ii) Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements Section R315-264-147 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-264-147(f) and (g).

(3) An owner or operator may meet the requirements of Section R315-264-147 by obtaining a letter of credit for liability coverage as specified in Subsection R315-264-147(h).

(4) An owner or operator may meet the requirements of Section R315-264-147 by obtaining a surety bond for liability coverage as specified in Subsection R315-264-147(i).

(5) An owner or operator may meet the requirements of Section R315-264-147 by obtaining a trust fund for liability coverage as specified in Subsection R315-264-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amount required by Section R315-264-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under Subsection R315-264-147(b), the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the Director in writing within 30 days whenever:

(i) A Claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in Subsections R315-264-147(b)(1) through (b)(6); or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under Subsections R315-264-147(b)(1) through (b)(6); or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden

accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-264-147(b)(1) through (b)(6).

(c) Request for variance. If an owner or operator can demonstrate to the satisfaction of the Director that the levels of financial responsibility required by Subsection R315-264-147(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the Director. The request for a variance shall be submitted to the Director as part of the application under Subsection R315-270-14 for a facility that does not have a permit, or pursuant to the procedures for permit modification under Subsection R315-124-5 for a facility that has a permit. If granted, the variance shall take the form of an adjusted level of required liability coverage, such level to be based on the Director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Director may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the Director to determine a level of financial responsibility other than that required by Subsection R315-264-147(a) or (b). Any request for a variance for a permitted facility shall be treated as a request for a permit modification under Subsections R315-270-41(a)(5) and R315-124-5.

(d) Adjustments by the Director. If the Director determines that the levels of financial responsibility required by Subsection R315-264-147(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Director may adjust the level of financial responsibility required under Subsection R315-264-147(a) or (b) as may be necessary to protect human health and the environment. This adjusted level shall be based on the Director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Director determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with Subsection R315-264-147(b). An owner or operator shall furnish to the Director, within a reasonable time, any information which the Director requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustment of the level or type of coverage for a facility that has a permit shall be treated as a permit modification under Subsections R315-270-41(a)(5) and Section R315-124-5.

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that final closure has been completed in accordance with the approved closure plan, the Director shall notify the owner or operator in writing that he is no longer required by Section R315-264-147 to maintain liability coverage for that facility, unless the Director has reason to believe that closure has not been in accordance with the approved closure plan.

(f) Financial test for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-264-147 by demonstrating that he passes a financial test as specified in Subsection R315-264-147(f). To pass this test the owner or operator shall meet the criteria of Subsection R315-264-147(f)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least $10 million; and

(C) Assets in the United States amounting to either:

(I) At least 90 percent of his total assets; or

(II) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least $10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either:

(I) At least 90 percent of his total assets; or

(II) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in Subsection R315-264-147(f)(1) refers to the annual aggregate amounts for which coverage is required under Section R315-264-147(a) and (b).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following three items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-264-151(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by Subsections R315-264-143(f), 145(f); or 40 CFR 265.143(e), and 145(e), which are adopted by reference; and liability coverage, he shall submit the letter specified in Subsection R315-264-151(g) to cover both forms of financial responsibility; a separate letter as specified in Subsection R315-264-151(f) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) An owner or operator of a new facility shall submit the items specified in Subsection R315-264-147(f)(3) to the Director at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

(5) After the initial submission of items specified in Subsection R315-264-147(f)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in Subsection R315-264-147(f)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-264-147(f)(1), he shall obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in Section R315-264-147. Evidence of liability coverage shall be submitted to the Director within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-264-147(f)(3)(ii). An adverse opinion or a disclaimer of opinion shall be cause for disallowance. The Director shall evaluate other qualifications on an individual basis. The owner or operator shall provide evidence of insurance for the entire amount of required liability coverage as specified in Section R315-264-147 within 30 days after notification of disallowance.

(g) Guarantee for liability coverage.

(1) Subject to Subsection R315-264-147(g)(2), an owner or operator may meet the requirements of Section R315-264-147 by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor shall meet the requirements for owners or operators in Section R315-264-147(f)(1) through (f)(6). The wording of the guarantee shall be identical to the wording specified in Subsection R315-264-151(h)(2). A certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-264-147(f)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter shall describe this "substantial business relationship" and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences, or both as the case may be, arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor shall do so up to the limits of coverage.

(ii) Reserved

(2)(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements Section R315-264-147 only if the Attorneys General or Insurance Commissioners of the State in which the guarantor is incorporated have submitted a written statement to the Director that a guarantee executed as described in Section R315-264-147 and Subsection R315-264-151(h)(2) is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements Section R315-264-147 only if

(A) the non-U.S. corporation has identified a registered agent for service of process in Utah and in the State in which it has its principal place of business, and

(B) the Attorney General or Insurance Commissioner of the State in which the guarantor corporation has its principal place of business, has submitted a written statement to the Director that a guarantee executed as described in Section R315-264-147 and Subsection R315-264-151(h)(2) is a legally valid and enforceable obligation in that State.

(h) Letter of credit for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-264-147 by obtaining an irrevocable standby letter of credit that conforms to the requirements of Subsection R315-264-147(h) and submitting a copy of the letter of credit to the Director.

(2) The financial institution issuing the letter of credit shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State agency.

(3) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-264-151(k).

(4) An owner or operator who uses a letter of credit to satisfy the requirements Section R315-264-147 may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust shall be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(5) The wording of the standby trust fund shall be identical to the wording specified in Subsection R315-264-151(n).

(i) Surety bond for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-264-147 by obtaining a surety bond that conforms to the requirements of Subsection R315-264-147(i) and submitting a copy of the bond to the Director.

(2) The surety company issuing the bond shall be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(l).

(4) A surety bond may be used to satisfy the requirements Section R315-264-147 only if the Attorneys General or Insurance Commissioners of the State in which the surety is incorporated has submitted a written statement to the Director that a surety bond executed as described in Section R315-264-147 and Subsection R315-264-151(l) is a legally valid and enforceable obligation in that State.

(j) Trust fund for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-264-147 by establishing a trust fund that conforms to the requirements of Subsection R315-264-147(j) and submitting an originally signed duplicate of the trust agreement to the Director.

(2) The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(3) The trust fund for liability coverage shall be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of Section R315-264-147. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the fund, shall either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in Section R315-264-147 to cover the difference. For purposes of Subsection R315-264-147(j), "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or nonsudden occurrences required to be provided by the owner or operator by Section R315-264-147, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The wording of the trust fund shall be identical to the wording specified in Subsection R315-264-151(m).

(k) Notwithstanding any other provision of Rule R315-264, an owner or operator using liability insurance to satisfy the requirements of Section R315-264-147 may use, until October 16, 1982, a Hazardous Waste Facility Liability Endorsement or Certificate of Liability Insurance that does not certify that the insurer is licensed to transact the business of insurance, or eligible as an excess or surplus lines insurer, in one or more States.

R315-264-148. Incapacity of Owners or Operators, Guarantors, or Financial Institutions.

(a) An owner or operator shall notify the Director by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11, Bankruptcy, U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in Subsections R315-264-143(f) and 145(f) shall make such a notification if he is named as debtor, as required under the terms of the corporate guarantee, Subsection R315-264-151(h).

(b) An owner or operator who fulfills the requirements of Sections R315-264-143, 145, or 147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy shall be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator shall establish other financial assurance or liability coverage within 60 days after such an event

R315-264-151. Financial Requirements -- Wording of the Instruments.

(a)(1) A trust agreement for a trust fund, as specified in Subsection R315-264-143(a) or Subsection R315-264-145(a) or 40 CFR 265.143(a) or 265.145(a), which are adopted by reference in Section R315-265-1; shall be worded as follows, except that instructions in parentheses,(), are to be replaced with the relevant information and the parentheses deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of (date) by and between (name of the owner or operator), a (name of State) (insert "corporation," "partnership," "association," or "proprietorship"), the "Grantor," and (name of corporate trustee), (insert "incorporated in the State of _____" or "a national bank"), the "Trustee."

Whereas, the Utah Waste Management and Radiation Control Board has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility,

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, Therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

(c) The term "Board" means the "Waste Management and Radiation Control Board" created pursuant to Utah Code Annotated 19-1-106.

(d) The term "Director" means the Director of the Division of Waste Management and Radiation Control, his successors, designees, and any subsequent entity of the State of Utah upon whom the duties of regulation and enforcement of regulations governing hazardous waste are granted.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A (on Schedule A, for each facility list the EPA Identification Number, name, address, and the current closure and/or post-closure cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Director of the Utah Division of Waste Management and Radiation Control. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred

to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Director.

Section 4. Payment for Closure and Post-Closure Care. The Trustee shall make payments from the Fund as the Director shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the Director from the Fund for closure and post-closure expenditures in such amounts as the Director shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Director specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions Section R315-264-151. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate Director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Director shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully

protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Director to the Trustee shall be in writing, signed by the Director, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the Director and the appropriate Regional Administrator(s), by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Utah.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-264-151(a)(1) as such regulations were constituted on the date first above written.

(Signature of Grantor)

(Title)

Attest:

(Title)

(Seal)

(Signature of Trustee)

Attest:

(Title)

(Seal)

(2) The following is an example of the certification of acknowledgment which shall accompany the trust agreement for a trust fund as specified in Subsections R315-264-143(a) and 145(a) or 40 CFR 265.143(a) or 145(a), which is adopted by reference. State requirements may differ on the proper content of this acknowledgment.

State of

County of

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

(b) A surety bond guaranteeing payment into a trust fund, as specified in Subsection R315-264-143(b) or 145(b) or 40 CFR 265.143(b) or 145(b), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Financial Guarantee Bond

Date bond executed:

Effective date:

Principal: (legal name and business address of owner or operator)

Type of Organization: (insert "individual," "joint venture," "partnership," or "corporation")

State of incorporation:

Surety(ies): (name(s) and business address(es))

EPA Identification Number, name, address and closure and/or post-closure amount(s) for each facility guaranteed by this bond (indicate closure and post-closure amounts separately):

Total penal sum of bond: $

Surety's bond number:

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Director of the Utah Division of Waste Management and Radiation Control (hereinafter called Director), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Utah Solid and Hazardous Waste Act (the Act), to have a permit or interim status in order to own or operate each hazardous waste management facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit or interim status, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility,

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by an the Director or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference; as applicable, and obtain the Director's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Director from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by an the Director that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Director.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the Director, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Director, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Director.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Director.

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-264-151(b) as such regulations were constituted on the date this bond was executed.

Principal

(Signature(s))

(Name(s))

(Title(s))

(Corporate seal)

Corporate Surety(ies)

(Name and address)
State of incorporation:
Liability limit: $
(Signature(s))
(Name(s) and title(s))
(Corporate seal)
(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)
Bond premium: $

(c) A surety bond guaranteeing performance of closure and/or post-closure care, as specified in Subsection R315-264-143(c) or 145(c), shall be worded as follows, except that the instructions in parentheses,(), are to be replaced with the relevant information and the parentheses deleted:

Performance Bond
Date bond executed:
Effective date:
Principal: (legal name and business address of owner or operator)
Type of organization: (insert "individual," "joint venture," "partnership," or "corporation")
State of incorporation:
Surety(ies): (name(s) and business address(es))
EPA Identification Number, name, address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond (indicate closure and post-closure amounts separately): _____
Total penal sum of bond: $
Surety's bond number:

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Director of the Utah Division of Waste Management and Radiation Control (hereinafter called Director), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Utah Solid and Hazardous Waste Act (the Act), to have a permit in order to own or operate each hazardous waste management facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

And, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure care, in accordance with the post-closure plan and other requirements of the permit, as such plan and permit may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the Principal shall provide alternate financial assurance as specified in Sections R315-264-140 through 148, and obtain the Director's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Director from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by an Director that the Principal has been found in violation of the closure requirements of Rule R315-264, for a facility for which this bond guarantees performance of closure, the Surety(ies) shall either perform closure in accordance with the closure plan and other permit requirements or place the closure amount guaranteed for the facility into the standby trust fund as directed by the Director.

Upon notification by the Director that the Principal has been found in violation of the post-closure requirements of Rule R315-264 for a facility for which this bond guarantees performance of post-closure care, the Surety(ies) shall either perform post-closure care in accordance with the post-closure plan and other permit requirements or place the post-closure amount guaranteed for the facility into the standby trust fund as directed by the Director.

Upon notification by the Director that the Principal has failed to provide alternate financial assurance as specified in Sections 315-264-140 through 148, and obtain written approval of such assurance from the Director during the 90 days following receipt by both the Principal and the Director of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the Director.

The surety(ies) hereby waive(s) notification of amendments to closure plans, permits, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such

payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director and the appropriate Regional Administrator, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Director, as evidenced by the return receipts.

The principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Director.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the Director.

In Witness Whereof, The Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-264-151(c) as such regulation was constituted on the date this bond was executed.

Principal
(Signature(s))
(Name(s))
(Title(s))
(Corporate seal)
Corporate Surety(ies)
(Name and address)
State of incorporation:
Liability limit: $
(Signature(s))
(Name(s) and title(s))
(Corporate seal)
(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)
Bond premium: $

(d) A letter of credit, as specified in Subsection R315-264-143(d) or 145(d) or 40 CFR 265.143(c) or 145(c), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Irrevocable Standby Letter of Credit
Director of the Division of Waste Management and Radiation Control
195 North 1950 West
P.O. Box 144880
Salt Lake City, UT 84114-4880

Dear Director: We hereby establish our Irrevocable Standby Letter of Credit No. ___ in your favor, at the request and for the account of (owner's or operator's name and address) up to the aggregate amount of (in words) U.S. dollars $___, available upon presentation of

(1) your sight draft, bearing reference to this letter of credit No. ___, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Utah Solid and Hazardous Waste Act."

This letter of credit is effective as of (date) and shall expire on (date at least 1 year later), but such expiration date shall be automatically extended for a period of (at least 1 year) on (date) and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and (owner's or operator's name) by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both the Director and (owner's or operator's name), as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of (owner's or operator's name) in accordance with the Director's instructions.

We certify that the wording of this letter of credit is identical to the wording specified in Subsection R315-264-151(d) as such regulations were constituted on the date shown immediately below.

(Signature(s) and title(s) of official(s) of issuing institution) (Date)

This credit is subject to (insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code").

(e) A certificate of insurance, as specified in Subsection R315-264-143(e) or 145(e) or 40 CFR 265.143(d) or 145(d), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certificate of Insurance for Closure or Post-Closure Care

Name and Address of Insurer
(herein called the "Insurer"):
Name and Address of Insured
(herein called the "Insured"):

Facilities Covered: (List for each facility: The EPA Identification Number, name, address, and the amount of insurance for closure and/or the amount for post-closure care (these amounts for all facilities covered shall total the face amount shown below).)

Face Amount:
Policy Number:
Effective Date:

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for (insert "closure" or "closure and post-closure care" or "post-closure care") for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of Subsections R315-264-143(e), or 145(e), or 40 CFR 265.143(d), and 145(d), which are adopted by reference, as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control, the Insurer agrees to furnish to the Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in Subsection R315-264-151(e) as such regulations were constituted on the date shown immediately below.

(Authorized signature for Insurer)
(Name of person signing)
(Title of person signing)
Signature of witness or notary:
(Date)

(f) A letter from the chief financial officer, as specified in Subsection R315-264-143(f) or 145(f), or 40 CFR 265.143(e) or 145(e), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Letter From Chief Financial Officer
Director, Utah Division of Waste Management and Radiation Control.
195 North 1950 West
P.O. Box 144880
Salt Lake City, UT 84114-4880

I am the chief financial officer of (name and address of firm). This letter is in support of this firm's use of the financial test to demonstrate financial assurance for closure and/or post-closure costs, as specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference.

(Fill out the following five paragraphs regarding facilities and associated cost estimates. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care).

1. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: ____.

2. This firm guarantees, through the guarantee specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, the closure or post-closure care of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ____; or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee ____). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter).

3. In other jurisdictions, and states where the Director is not authorized to administer the financial requirements of R315-264-140 through 151 or 40 CFR 265.140 through 148, which are adopted by reference, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: ____.

4. This firm is the owner or operator of the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: ____.

5. This firm is the owner or operator of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR 144. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: ____.

This firm (insert "is required" or "is not required") to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on (month, day). The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended (date).

(Fill in Alternative I if the criteria of Subsection R315-264-143(f)(1)(i) or Subsection R315-264-145(f)(1)(i), or 40 CFR 265.143(e)(1)(i) or 145(e)(1)(i), which are adopted by reference, are used. Fill in Alternative II if the criteria of Subsection R315-264-143(f)(1)(ii) or 40 CFR 265.143(e)(1)(ii) or 145(e)(1)(ii) or 145(f)(1)(ii), which are adopted by reference, are used.)

Alternative I

1. Sum of current closure and post-closure cost estimate (total of all cost estimates shown in the five paragraphs above) $____

*2. Total liabilities (if any portion of the closure or post-closure cost estimates is included in total liabilities, you may deduct the amount of that portion from this line and add that amount to lines 3 and 4)$____

*3. Tangible net worth $____

*4. Net worth $____

*5. Current assets $____

*6. Current liabilities $____

7. Net working capital (line 5 minus line 6) $____

*8. The sum of net income plus depreciation, depletion, and amortization $____

*9. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____

10. Is line 3 at least $10 million? (Yes/No) ____

11. Is line 3 at least 6 times line 1? (Yes/No) ____

12. Is line 7 at least 6 times line 1? (Yes/No) ____

*13. Are at least 90% of firm's assets located in the U.S.? If not, complete line 14 (Yes/No) ____

14. Is line 9 at least 6 times line 1? (Yes/No) ____

15. Is line 2 divided by line 4 less than 2.0? (Yes/No) ____

16. Is line 8 divided by line 2 greater than 0.1? (Yes/No) ____

17. Is line 5 divided by line 6 greater than 1.5? (Yes/No) ____

Alternative II

1. Sum of current closure and post-closure cost estimates (total of all cost estimates shown in the five paragraphs above) $____

2. Current bond rating of most recent issuance of this firm and name of rating service ____

3. Date of issuance of bond ____

4. Date of maturity of bond ____

*5. Tangible net worth (if any portion of the closure and post-closure cost estimates is included in "total liabilities" on your firm's financial statements, you may add the amount of that portion to this line) $____

*6. Total assets in U.S. (required only if less than 90% of firm's assets are located in the U.S.) $____

7. Is line 5 at least $10 million ? (Yes/No) ____

8. Is line 5 at least 6 times line 1? (Yes/No) ____

*9. Are at least 90% of firm's assets located in the U.S.? If not, complete line 10 (Yes/No) ____

10. Is line 6 at least 6 times line 1? (Yes/No) ____

I hereby certify that the wording of this letter is identical to the wording specified in Subsection R315-264-151(f) as such regulations were constituted on the date shown immediately below.

(Signature)

(Name)

(Title)

(Date)

(g) A letter from the chief financial officer, as specified in Subsection R315-264-147(f) or 40 CFR 265.147(f), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted.

Letter From Chief Financial Officer

Director, Utah Division of Waste Management and Radiation Control.

195 North 1950 West

P.O. Box 144880

Salt Lake City, UT 84114-4880

I am the chief financial officer of (firm's name and address). This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage (insert "and closure and/or post-closure care" if applicable) as specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference.

(Fill out the following paragraphs regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, and address).

The firm identified above is the owner or operator of the following facilities for which liability coverage for (insert "sudden" or "nonsudden" or "both sudden and nonsudden") accidental occurrences is being demonstrated through the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference:____

The firm identified above guarantees, through the guarantee specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, liability coverage for (insert "sudden" or "nonsudden" or "both sudden and nonsudden") accidental occurrences at the following facilities owned or operated by the following: ____. The firm identified above is (insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as

the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ____; or (3) engaged in the following substantial business relationship with the owner or operator ____, and receiving the following value in consideration of this guarantee ____). (Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.)

(If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following five paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA identification number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.)

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference. The current closure and/or post-closure cost estimate covered by the test are shown for each facility: ____.

2. The firm identified above guarantees, through the guarantee specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for closure or post-closure care so guaranteed are shown for each facility: ____.

3. In other jurisdictions, and states where the Director is not authorized to administer the financial requirements of R315-264-140 through 151 or 40 CFR 265.140 through 148, which are adopted by reference, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference. The current closure or post-closure cost estimates covered by such a test are shown for each facility: ____.

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanisms specified in Sections R315-264-140 through 148 and 40 CFR 265.140 through 148, which are adopted by reference, or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: ____.

5. This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required under 40 CFR 144 and is assured through a financial test. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility:____.

This firm (insert "is required" or "is not required") to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on (month, day). The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended (date).

Part A. Liability Coverage for Accidental Occurrences

(Fill in Alternative I if the criteria of Subsection R315-264-147(f)(1)(i) or 40 CFR 265.147(f)(1)(i), which is adopted by reference, are used. Fill in Alternative II if the criteria of Subsection R315-264-147(f)(1)(ii) or 40 CFR 265.147(f)(1)(ii), which is adopted by reference, are used.)

Alternative I

1. Amount of annual aggregate liability coverage to be demonstrated $____.
*2. Current assets $____.
*3. Current liabilities $____.
4. Net working capital (line 2 minus line 3) $____.
*5. Tangible net worth $____.
*6. If less than 90% of assets are located in the U.S., give total U.S. assets $____.
7. Is line 5 at least $10 million? (Yes/No) ____.
8. Is line 4 at least 6 times line 1? (Yes/No) ____.
9. Is line 5 at least 6 times line 1? (Yes/No) ____.
*10. Are at least 90% of assets located in the U.S.? (Yes/No) ____. If not, complete line 11.
11. Is line 6 at least 6 times line 1? (Yes/No) ____.

Alternative II

1. Amount of annual aggregate liability coverage to be demonstrated $____.
2. Current bond rating of most recent issuance and name of rating service ____ ____.
3. Date of issuance of bond _____.
4. Date of maturity of bond _____.
*5. Tangible net worth $____.
*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____.
7. Is line 5 at least $10 million? (Yes/No) ____.
8. Is line 5 at least 6 times line 1? ____.
9. Are at least 90% of assets located in the U.S.? If not, complete line 10. (Yes/No) ____.
10. Is line 6 at least 6 times line 1? ____.

(Fill in part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.)

Part B. Closure or Post-Closure Care and Liability Coverage

(Fill in Alternative I if the criteria of Subsection R315-264-143(f)(1)(i) or Subsection R315-264-145(f)(1)(i) and of Subsection R315-264-147(f)(1)(i) are used or if the criteria of 40 CFR 265.143(e)(1)(i) or 145(e)(1)(i), which are adopted by reference, and of 40 CFR 265.147(f)(1)(i), which is adopted by reference, are used. Fill in Alternative II if the criteria of Subsection R315-264-143(f)(1)(ii) or Subsection R315-264-145(f)(1)(ii) and of Subsection R315-264-147(f)(1)(ii) are used or if the criteria of 40 CFR 265.143(e)(1)(i) or 145(e)(1)(i), which are adopted by reference, and of 40 CFR 265.147(f)(1)(ii), which is adopted by reference, are used.)

Alternative I

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above) $____

2. Amount of annual aggregate liability coverage to be demonstrated $____

3. Sum of lines 1 and 2 $____

*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6) $____

*5. Tangible net worth $____

*6. Net worth $____

*7. Current assets $____

*8. Current liabilities $____

9. Net working capital (line 7 minus line 8) $____

*10. The sum of net income plus depreciation, depletion, and amortization $____

*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) $____

12. Is line 5 at least $10 million? (Yes/No)

13. Is line 5 at least 6 times line 3? (Yes/No)

14. Is line 9 at least 6 times line 3? (Yes/No)

*15. Are at least 90% of assets located in the U.S.? (Yes/No) If not, complete line 16.

16. Is line 11 at least 6 times line 3? (Yes/No)

17. Is line 4 divided by line 6 less than 2.0? (Yes/No)

18. Is line 10 divided by line 4 greater than 0.1? (Yes/No)

19. Is line 7 divided by line 8 greater than 1.5? (Yes/No)

Alternative II

1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above) $____

2. Amount of annual aggregate liability coverage to be demonstrated $____

3. Sum of lines 1 and 2 $____

4. Current bond rating of most recent issuance and name of rating service ____ ____

5. Date of issuance of bond _____

6. Date of maturity of bond _____

*7. Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line) $____

*8. Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.) $____

9. Is line 7 at least $10 million? (Yes/No)

10. Is line 7 at least 6 times line 3? (Yes/No)

*11. Are at least 90% of assets located in the U.S.? (Yes/No) If not complete line 12.

12. Is line 8 at least 6 times line 3? (Yes/No)

I hereby certify that the wording of this letter is identical to the wording specified in Subsection R315-264-151(g) as such regulations were constituted on the date shown immediately below.

(Signature)

(Name)

(Title)

(Date)

(h)(1) A corporate guarantee, as specified in Subsection R315-264-143(f) or 145(f), or 40 CFR 265.143(e) or 145(e), which are adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Corporate Guarantee for Closure or Post-Closure Care

Guarantee made this (date) by (name of guaranteeing entity), a business corporation organized under the laws of the State of (insert name of State), herein referred to as guarantor. This guarantee is made on behalf of the (owner or operator) of (business address), which is (one of the following: "our subsidiary"; "a subsidiary of (name and address of common parent corporation), of which guarantor is a subsidiary"; or "an entity with which guarantor has a substantial business relationship, as defined in (either Subsection R315-264-141(h) or 40 CFR 265.141(h), which is adopted by reference,)" to the Director of the Utah Division of Waste Management and Radiation Control (Director).

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Subsections R315-264-143(f) and 145(f) or 40 CFR 265.143(e) and 145(e), which are adopted by reference.

2. (Owner or operator) owns or operates the following hazardous waste management facility(ies) covered by this guarantee: (List for each facility: EPA Identification Number, name, and address. Indicate for each whether guarantee is for closure, post-closure care, or

both.)

3. "Closure plans" and "post-closure plans" as used below refer to the plans maintained as required by Sections R315-264-110 through 120 and 40 CFR 265.110 through 120, which are adopted by reference, for the closure and post-closure care of facilities as identified above.

4. For value received from (owner or operator), guarantor guarantees to the Director that in the event that (owner or operator) fails to perform (insert "closure," "post-closure care" or "closure and post-closure care") of the above facility(ies) in accordance with the closure or post-closure plans and other permit or interim status requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, as applicable, in the name of (owner or operator) in the amount of the current closure or post-closure cost estimates as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Director and to (owner or operator) that he intends to provide alternate financial assurance as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, as applicable, in the name of (owner or operator). Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless (owner or operator) has done so.

6. The guarantor agrees to notify the Director and the appropriate Regional Administrator by certified mail, of a voluntary or involuntary proceeding under Title 11, Bankruptcy, U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Director of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, as applicable, in the name of (owner or operator) unless (owner or operator) has done so.

8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to Rules R315-264 or 265.

9. Guarantor agrees to remain bound under this guarantee for as long as (owner or operator) shall comply with the applicable financial assurance requirements of Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, for the above-listed facilities, except as provided in paragraph 10 of this agreement.

10. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator):

Guarantor may terminate this guarantee by sending notice by certified mail to the Director and to (owner or operator)and to the appropriate Regional Administrator, provided that this guarantee may not be terminated unless and until (the owner or operator) obtains, and the Director approves, alternate closure and/or post-closure care coverage complying with Sections R315-264-143 and/or 264-145, or 40 CFR 265.143, and/or 145, which are adopted by reference.

(Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with its owner or operator)

Guarantor may terminate this guarantee 120 days following the receipt of notification, through certified mail, by the Director and by (the owner or operator).

11. Guarantor agrees that if (owner or operator) fails to provide alternate financial assurance as specified in Sections R315-264-140 through 148 or 40 CFR 265.140 through 148, which are adopted by reference, as applicable, and obtain written approval of such assurance from the Director within 90 days after a notice of cancellation by the guarantor is received by the Director from guarantor, guarantor shall provide such alternate financial assurance in the name of (owner or operator).

12. Guarantor expressly waives notice of acceptance of this guarantee by the Director or by (owner or operator). Guarantor also expressly waives notice of amendments or modifications of the closure and/or post-closure plan and of amendments or modifications of the facility permit(s).

I hereby certify that the wording of this guarantee is identical to the wording specified in Subsection R315-264-151(h) as such regulations were constituted on the date first above written.

Effective date:

(Name of guarantor)

(Authorized signature for guarantor)

(Name of person signing)

(Title of person signing)

Signature of witness or notary:

(2) A guarantee, as specified in Subsection R315-264-147(g) or 40 CFR 265.147(g), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Guarantee for Liability Coverage

Guarantee made this (date) by (name of guaranteeing entity), a business corporation organized under the laws of (if incorporated within the United States insert "the State of ____" and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business), herein referred to as guarantor. This guarantee is made on behalf of (owner or operator) of (business address), which is one of the following: "our subsidiary;" "a subsidiary of (name and address of common parent corporation), of

which guarantor is a subsidiary;" or "an entity with which guarantor has a substantial business relationship, as defined in (either Subsection R315-264-141(h) or 40 CFR 265.141(h), which is adopted by reference,)", to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee.

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in Subsection R315-264-147(g) and 40 CFR 265.147(g), which is adopted by reference.

2. (Owner or operator) owns or operates the following hazardous waste management facility(ies) covered by this guarantee: (List for each facility: EPA identification number, name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each State.) This corporate guarantee satisfies the third-party liability requirements for (insert "sudden" or "nonsudden" or "both sudden and nonsudden") accidental occurrences in above-named owner or operator facilities for coverage in the amount of (insert dollar amount) for each occurrence and (insert dollar amount) annual aggregate.

3. For value received from (owner or operator), guarantor guarantees to any and all third parties who have sustained or may sustain bodily injury or property damage caused by (sudden and/or nonsudden) accidental occurrences arising from operations of the facility(ies) covered by this guarantee that in the event that (owner or operator) fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by (sudden and/or nonsudden) accidental occurrences, arising from the operation of the above-named facilities, or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor shall satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.

4. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which (insert owner or operator) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert owner or operator) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert owner or operator) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert owner or operator) arising from, and in the course of, employment by (insert owner or operator); or

(2) The spouse, child, parent, brother, or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert owner or operator). This exclusion applies:

(A) Whether (insert owner or operator) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert owner or operator);

(2) Premises that are sold, given away or abandoned by (insert owner or operator) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert owner or operator);

(4) Personal property in the care, custody or control of (insert owner or operator);

(5) That particular part of real property on which (insert owner or operator) or any contractors or subcontractors working directly or indirectly on behalf of (insert owner or operator) are performing operations, if the property damage arises out of these operations.

5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the Director and to (owner or operator) and to the appropriate Regional Administrator that he intends to provide alternate liability coverage as specified in Section R315-264-147 and 40 CFR 265.147, which is adopted by reference, as applicable, in the name of (owner or operator). Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless (owner or operator) has done so.

6. The guarantor agrees to notify the Director and the appropriate Regional Administrator by certified mail of a voluntary or involuntary proceeding under title 11, Bankruptcy, U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

7. Guarantor agrees that within 30 days after being notified by the Director of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in Section R315-264-147 or 40 CFR 265.147, which is adopted by reference, in the name of (owner or operator), unless (owner or operator) has done so.

8. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by Section R315-264-147 and 40 CFR 265.147, which is adopted by reference, provided that such modification shall become effective only if the Director does not disapprove the modification within 30 days of receipt of notification of the modification.

9. Guarantor agrees to remain bound under this guarantee for so long as (owner or operator) shall comply with the applicable requirements of Sections R315-264-147 and 40 CFR 265.147, which is adopted by reference, for the above-listed facility(ies), except as provided in paragraph 10 of this agreement.

10. (Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the owner or operator):

Guarantor may terminate this guarantee by sending notice by certified mail to the Director and to (owner or operator) and to the appropriate Regional Administrator, provided that this guarantee may not be terminated unless and until (the owner or operator) obtains, and the Director approves, alternate liability coverage complying with Sections R315-264-147 and/or 40 CFR 265.147, which is adopted by reference.

(Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the owner or operator):

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the Director and by (the owner or operator).

11. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

12. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

13. The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert Principal) and (insert name and address of third-party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Principal's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $.

(Signatures)

Principal

(Notary) Date

(Signatures)

Claimant(s)

(Notary) Date

(b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

14. In the event of combination of this guarantee with another mechanism to meet liability requirements, this guarantee shall be considered (insert "primary" or "excess") coverage.

I hereby certify that the wording of the guarantee is identical to the wording specified in Subsection R315-264-151(h)(2) as such regulations were constituted on the date shown immediately below.

Effective date:

(Name of guarantor)

(Authorized signature for guarantor)

(Name of person signing)

(Title of person signing)

Signature of witness or notary:

(i) A hazardous waste facility liability endorsement as required in Section R315-264-147 or 40 CFR 265.147, which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Hazardous Waste Facility Liability Endorsement

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering bodily injury and property damage in connection with the insured's obligation to demonstrate financial responsibility under Sections R315-264-147 or 40 CFR 265.147, which is adopted by reference. The coverage applies at (list EPA Identification Number, name, and address for each facility) for (insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both). The limits of liability are (insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability), exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Subsections R315-264-147(f) or 40 CFR 265.147(f), which is adopted by reference.

(c) Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control (Director), the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, shall be effective only upon written notice and only after the expiration of 60 days after a copy of

such written notice is received by the Director and by the appropriate Regional Administrator.

(e) Any other termination of this endorsement shall be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Director.

Attached to and forming part of policy No. ___ issued by (name of Insurer), herein called the Insurer, of (address of Insurer) to (name of insured) of (address) this _____ day of _____, 19__. The effective date of said policy is _____ day of _____, 19__.

I hereby certify that the wording of this endorsement is identical to the wording specified in Subsection R315-264-151(i) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(Signature of Authorized Representative of Insurer)

(Type name)

(Title), Authorized Representative of (name of Insurer)

(Address of Representative)

(j) A certificate of liability insurance as required in Section R315-264-147 or 40 CFR 265.147, which is adopted by reference, shall be worded as follows, except that the instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Hazardous Waste Facility Certificate of Liability Insurance

1. (Name of Insurer), (the "Insurer"), of (address of Insurer) hereby certifies that it has issued liability insurance covering bodily injury and property damage to (name of insured), (the "insured"), of (address of insured) in connection with the insured's obligation to demonstrate financial responsibility under Sections R315-264-147 or 40 CFR 265.147, which is adopted by reference. The coverage applies at (list EPA Identification Number, name, and address for each facility) for (insert "sudden accidental occurrences," "nonsudden accidental occurrences," or "sudden and nonsudden accidental occurrences"; if coverage is for multiple facilities and the coverage is different for different facilities, indicate which facilities are insured for sudden accidental occurrences, which are insured for nonsudden accidental occurrences, and which are insured for both). The limits of liability are (insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability), exclusive of legal defense costs. The coverage is provided under policy number ___, issued on (date). The effective date of said policy is (date).

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in Subsection R315-264-147(f) or 40 CFR 265.147(f), which is adopted by reference.

(c) Whenever requested by the Director of the Utah Division of Waste Management and Radiation Control, the Insurer agrees to furnish to the Director a signed duplicate original of the policy and all endorsements.

(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, shall be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Director and by the appropriate Regional Administrator.

(e) Any other termination of the insurance shall be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Director.

I hereby certify that the wording of this instrument is identical to the wording specified in Subsection R315-264-151(j) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(Signature of authorized representative of Insurer)

(Type name)

(Title), Authorized Representative of (name of Insurer)

(Address of Representative)

(k) A letter of credit, as specified in Subsection R315-264-147(h) or 40 CFR 265.147(h), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Irrevocable Standby Letter of Credit

Director, Utah Division of Waste Management and Radiation Control

195 North 1950 West

P.O. Box 144880

Salt Lake City, UT 84114-4880

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____ in the favor of ("any and all third-party liability claimants" or insert name of trustee of the standby trust fund), at the request and for the account of (owner or operator's name and address) for third-party liability awards or settlements up to (in words) U.S. dollars $_____ per occurrence and the annual aggregate amount of (in words) U.S. dollars $_____, for sudden accidental occurrences and/or for third-party liability awards or settlements up to the amount of (in words) U.S. dollars $_____ per occurrence, and the annual aggregate amount of (in words) U.S. dollars $_____, for nonsudden accidental occurrences available upon presentation of a sight draft bearing reference to this letter of credit No. _____, and (insert the following language if the letter of credit is being used without a standby trust fund: (1) a signed certificate reading as follows:

Certificate of Valid Claim

The undersigned, as parties (insert principal) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operations of (principal's)

hazardous waste treatment, storage, or disposal facility should be paid in the amount of $( ). We hereby certify that the claim does not apply to any of the following:

(a) Bodily injury or property damage for which (insert principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert principal) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert principal) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert principal) arising from, and in the course of, employment by (insert principal); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert principal).

This exclusion applies:

(A) Whether (insert principal) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert principal);

(2) Premises that are sold, given away or abandoned by (insert principal) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert principal);

(4) Personal property in the care, custody or control of (insert principal);

(5) That particular part of real property on which (insert principal) or any contractors or subcontractors working directly or indirectly on behalf of (insert principal) are performing operations, if the property damage arises out of these operations.

(Signatures)

Grantor

(Signatures)

Claimant(s) or

(2) a valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.)

This letter of credit is effective as of (date) and shall expire on (date at least one year later), but such expiration date shall be automatically extended for a period of (at least one year) on (date and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the Director of the Utah Division of Waste Management and Radiation Control, and (owner's or operator's name) and the appropriate Regional Administrator by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

(Insert the following language if a standby trust fund is not being used: "In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered (insert "primary" or "excess" coverage)."

We certify that the wording of this letter of credit is identical to the wording specified in Subsection R315-264-151(k) as such regulations were constituted on the date shown immediately below. (Signature(s) and title(s) of official(s) of issuing institution) (Date).

This credit is subject to (insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code").

(l) A surety bond, as specified in Subsection R315-264-147(i) or 40 CFR 265.147(i), which is adopted by reference, shall be worded as follows: except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Payment Bond

Surety Bond No. (Insert number)

Parties (Insert name and address of owner or operator), Principal, incorporated in (Insert State of incorporation) of (Insert city and State of principal place of business) and (Insert name and address of surety company(ies)), Surety Company(ies), of (Insert surety(ies) place of business).

EPA Identification Number, name, and address for each facility guaranteed by this bond:

Table

	Sudden accidental occurrences	Nonsudden accidental occurrences
Penal Sum Per Occurrence	(insert amount)	(insert amount)
Annual Aggregate	(insert amount)	(insert amount)

Purpose: This is an agreement between the Surety(ies) and the Principal under which the Surety(ies), its(their) successors and assignees, agree to be responsible for the payment of claims against the Principal for bodily injury and/or property damage to third parties

caused by ("sudden" and/or "nonsudden") accidental occurrences arising from operations of the facility or group of facilities in the sums prescribed herein; subject to the governing provisions and the following conditions.

Governing Provisions:

(1) Section 3004 of the Resource Conservation and Recovery Act of 1976, as amended.

(2) Rules adopted by the Utah Waste Management and Radiation Control Board under the Utah Solid and Hazardous Waste Act, particularly ("Subsection R315-264-147" or "40 CFR 265.147, which is adopted by reference,") (if applicable).

Conditions:

(1) The Principal is subject to the applicable governing provisions that require the Principal to have and maintain liability coverage for bodily injury and property damage to third parties caused by ("sudden" and/or "nonsudden") accidental occurrences arising from operations of the facility or group of facilities. Such obligation does not apply to any of the following:

(a) Bodily injury or property damage for which (insert principal) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert principal) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert principal) under a workers' compensation, disability benefits, or unemployment compensation law or similar law.

(c) Bodily injury to:

(1) An employee of (insert principal) arising from, and in the course of, employment by (insert principal); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert principal). This exclusion applies:

(A) Whether (insert principal) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert principal);

(2) Premises that are sold, given away or abandoned by (insert principal) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert principal);

(4) Personal property in the care, custody or control of (insert principal);

(5) That particular part of real property on which (insert principal) or any contractors or subcontractors working directly or indirectly on behalf of (insert principal) are performing operations, if the property damage arises out of these operations.

(2) This bond assures that the Principal shall satisfy valid third party liability claims, as described in condition 1.

(3) If the Principal fails to satisfy a valid third party liability claim, as described above, the Surety(ies) becomes liable on this bond obligation.

(4) The Surety(ies) shall satisfy a third party liability claim only upon the receipt of one of the following documents:

(a) Certification from the Principal and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert name of Principal) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Principal's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $( ).

(Signature)

Principal

(Notary) Date

(Signature(s))

Claimant(s)

(Notary) Date

or (b) A valid final court order establishing a judgment against the Principal for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Principal's facility or group of facilities.

(5) In the event of combination of this bond with another mechanism for liability coverage, this bond shall be considered (insert "primary" or "excess") coverage.

(6) The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond. In no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum, provided that the Surety(ies) furnish(es) notice to the Director forthwith of all claims filed and payments made by the Surety(ies) under this bond.

(7) The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and the Director and the appropriate Regional Administrator, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal and the Director, as evidenced by the return receipt.

(8) The Principal may terminate this bond by sending written notice to the Surety(ies) and to the Director.

(9) The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules and regulations and agree(s) that no such amendment shall in any way alleviate its (their) obligation on this bond.

(10) This bond is effective from (insert date) (12:01 a.m., standard time, at the address of the Principal as stated herein) and shall continue in force until terminated as described above.

In Witness Whereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in Subsection R315-264-151(1), as such regulations were constituted on the date this bond was executed.

PRINCIPAL
(Signature(s))
(Name(s))
(Title(s))
(Corporate Seal)
CORPORATE SURETY(IES)
(Name and address)
State of incorporation:
Liability Limit: $
(Signature(s))
(Name(s) and title(s))
(Corporate seal)
(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)
Bond premium: $

(m)(1) A trust agreement, as specified in Subsection R315-264-147(j) or 40 CFR 265.147(j), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Trust Agreement

Trust Agreement, the "Agreement," entered into as of (date) by and between (name of the owner or operator) a (name of State) (insert "corporation," "partnership," "association," or "proprietorship"), the "Grantor," and (name of corporate trustee), (insert, "incorporated in the State of ____" or "a national bank"), the "trustee."

Whereas, the Utah Waste Management and Radiation Control Board, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a trust to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Board", "Waste Management and Radiation Control Board" created pursuant to Utah Code Annotated 19-1-106.

(b) The term "Director" means the Director,of the Division of Waste Management and Radiation Control his successors, designees, and any subsequent entity of the State of Utah upon whom the duties of regulation and enforcement of regulations governing hazardous waste.

(c) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(d) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A (on schedule A, for each facility list the EPA Identification Number, name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the "Fund," for the benefit of any and all third parties injured or damaged by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____ (up to $1 million) per occurrence and _____ (up to $2 million) annual aggregate for sudden accidental occurrences and _____ (up to $3 million) per occurrence and _____ (up to $6 million) annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which (insert Grantor) is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Grantor) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Grantor) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert Grantor) arising from, and in the course of, employment by (insert Grantor); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Grantor).

This exclusion applies:

(A) Whether (insert Grantor) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Grantor);

(2) Premises that are sold, given away or abandoned by (insert Grantor) if the property damage arises out of any part of those premises;

(3) Property loaned to (insert Grantor);

(4) Personal property in the care, custody or control of (insert Grantor);

(5) That particular part of real property on which (insert Grantor) or any contractors or subcontractors working directly or indirectly on behalf of (insert Grantor) are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered (insert "primary" or "excess") coverage.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by Director.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents;

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert Grantor) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Grantor's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $( ).

(Signatures)

Grantor

(Signatures)

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions Section R315-264-151. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other

instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Director shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Director to the Trustee shall be in writing, signed by the Director and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for bodily injury or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4, or shall provide written proof to the Trustee that other financial assurance for liability coverage has been obtained equalling the amount necessary to return the trust to its value prior to the payment of claims. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the Director and to the appropriate Regional Administrator.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The Director shall agree to termination of the Trust when the owner or operator substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the Director issued in

accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Utah.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-264-151(m) as such regulations were constituted on the date first above written.

(Signature of Grantor)

(Title)

Attest:

(Title)

(Seal)

(Signature of Trustee)

Attest:

(Title)

(Seal)

(2) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a trust fund as specified in Subsection R315-264-147(j) or 40 CFR 265.147(j), which is adopted by reference.

State of

County of

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

(n)(1) A standby trust agreement, as specified in Subsection R315-264-147(h) or 40 CFR 265.147(h), which is adopted by reference, shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Standby Trust Agreement

Trust Agreement, the "Agreement," entered into as of (date) by and between (name of the owner or operator) a (name of a State) (insert "corporation," "partnership," "association," or "proprietorship"), the "Grantor," and (name of corporate trustee), (insert, "incorporated in the State of _____" or "a national bank"), the "trustee."

Whereas the Utah Waste Management and Radiation Control Board, in accordance with the Utah Solid and Hazardous Waste Act, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a hazardous waste management facility or group of facilities shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental and/or nonsudden accidental occurrences arising from operations of the facility or group of facilities.

Whereas, the Grantor has elected to establish a standby trust into which the proceeds from a letter of credit may be deposited to assure all or part of such financial responsibility for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Board", "Waste Management and Radiation Control Board" created pursuant to Utah Code Annotated 19-1-106.

(b) The term "Director" means the Director of the Division of Waste Management and Radiation Control, his successors, designees, and any subsequent entity of the State of Utah upon whom the duties of regulation and enforcement of regulations governing hazardous waste are granted.

(c) The term Grantor means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(d) The term Trustee means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities. This agreement pertains to the facilities identified on attached schedule A (on schedule A, for each facility list the EPA Identification Number, name, and address of the facility(ies) and the amount of liability coverage, or portions thereof, if more than one instrument affords combined coverage as demonstrated by this Agreement).

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a standby trust fund, hereafter the "Fund," for the benefit of any and all third parties injured or damaged by (sudden and/or nonsudden) accidental occurrences arising from operation of the facility(ies) covered by this guarantee, in the amounts of _____ (up to $1 million) per occurrence and _____ (up to $2 million) annual aggregate for sudden accidental occurrences and _____ (up to $3 million) per occurrence and _____ (up to $6 million) annual aggregate for nonsudden occurrences, except that the Fund is not established for the benefit of third parties for the following:

(a) Bodily injury or property damage for which (insert Grantor) is obligated to pay damages by reason of the assumption of

liability in a contract or agreement. This exclusion does not apply to liability for damages that (insert Grantor) would be obligated to pay in the absence of the contract or agreement.

(b) Any obligation of (insert Grantor) under a workers' compensation, disability benefits, or unemployment compensation law or any similar law.

(c) Bodily injury to:

(1) An employee of (insert Grantor) arising from, and in the course of, employment by (insert Grantor); or

(2) The spouse, child, parent, brother or sister of that employee as a consequence of, or arising from, and in the course of employment by (insert Grantor).

This exclusion applies:

(A) Whether (insert Grantor) may be liable as an employer or in any other capacity; and

(B) To any obligation to share damages with or repay another person who shall pay damages because of the injury to persons identified in paragraphs (1) and (2).

(d) Bodily injury or property damage arising out of the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle or watercraft.

(e) Property damage to:

(1) Any property owned, rented, or occupied by (insert Grantor);

(2) Premises that are sold, given away or abandoned by (insert Grantor) if the property damage arises out of any part of those premises;

(3) Property loaned by (insert Grantor);

(4) Personal property in the care, custody or control of (insert Grantor);

(5) That particular part of real property on which (insert Grantor) or any contractors or subcontractors working directly or indirectly on behalf of (insert Grantor) are performing operations, if the property damage arises out of these operations.

In the event of combination with another mechanism for liability coverage, the fund shall be considered (insert "primary" or "excess") coverage.

The Fund is established initially as consisting of the proceeds of the letter of credit deposited into the Fund. Such proceeds and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by the Director of the Utah Division of Waste Management and Radiation Control.

Section 4. Payment for Bodily Injury or Property Damage. The Trustee shall satisfy a third party liability claim by drawing on the letter of credit described in Schedule B and by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification shall be worded as follows, except that instructions in parentheses, (), are to be replaced with the relevant information and the parentheses deleted:

Certification of Valid Claim

The undersigned, as parties (insert Grantor) and (insert name and address of third party claimant(s)), hereby certify that the claim of bodily injury and/or property damage caused by a (sudden or nonsudden) accidental occurrence arising from operating (Grantor's) hazardous waste treatment, storage, or disposal facility should be paid in the amount of $( ).

(Signature)

Grantor

(Signatures)

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for bodily injury or property damage caused by sudden or nonsudden accidental occurrences arising from the operation of the Grantor's facility or group of facilities.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of the proceeds from the letter of credit drawn upon by the Trustee in accordance with the requirements of Subsection R315-264-151(k) and Section 4 of this Agreement.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions Section R315-264-151. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or a State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created

by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depositary even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depositary with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements to the Trustee shall be paid from the Fund.

Section 10. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 11. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 12. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the Director and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 13. Instructions to the Trustee. All orders, requests, certifications of valid claims, and instructions to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Director hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Director, except as provided for herein.

Section 14. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the Director, or by the Trustee and the Director if the Grantor ceases to exist.

Section 15. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 14, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the Director, or by the Trustee and the Director, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be paid to the Grantor.

The Director shall agree to termination of the Trust when the owner or operator substitutes alternative financial assurance as specified in this section.

Section 16. Immunity and indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor and the Director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 17. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of

Utah.

Section 18. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in Subsection R315-264-151(n) as such regulations were constituted on the date first above written.

(Signature of Grantor)
(Title)
Attest:
(Title)
(Seal)
(Signature of Trustee)
Attest:
(Title)
(Seal)

(2) The following is an example of the certification of acknowledgement which shall accompany the trust agreement for a standby trust fund as specified in Subsection R315-264-147(h) or 40 CFR 265.147(h) , which is adopted by reference.

State of
County of

On this (date), before me personally came (owner or operator) to me known, who, being by me duly sworn, did depose and say that she/he resides at (address), that she/he is (title) of (corporation), the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

(Signature of Notary Public)

R315-264-170. Use and Management of Containers -- Applicability.

The regulations in Sections R315-264-170 through 179 apply to owners and operators of all hazardous waste facilities that store hazardous waste in containers, except as Section R315-264-1 provides otherwise.

Under Section R315-261-7 and Subsection R315-261-33(c), if a hazardous waste is emptied from a container the residue remaining in the container is not considered a hazardous waste if the container is "empty" as defined in Section R315-261-7. In that event, management of the container is exempt from the requirements of Sections R315-264-170 through 179.

R315-264-171. Condition of Containers.

If a container holding hazardous waste is not in good condition, e.g., severe rusting, apparent structural defects, or if it begins to leak, the owner or operator shall transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of Rule R315-264.

R315-264-172. Compatibility of Waste with Containers.

The owner or operator shall use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

R315-264-173. Management of Containers.

(a) A container holding hazardous waste shall always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste shall not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Comment: Reuse of containers in transportation is governed by U.S. Department of Transportation regulations including those set forth in 49 CFR 173.28.

R315-264-174. Use and Management of Containers -- Inspections.

At least weekly, the owner or operator shall inspect areas where containers are stored. The owner or operator shall look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

See Subsection R315-264-15(c) and Section R315-264-171 for remedial action required if deterioration or leaks are detected.

R315-264-175. Containment.

(a) Container storage areas shall have a containment system that is designed and operated in accordance with Subsection R315-264-175(b), except as otherwise provided by Subsection R315-264-175(c).

(b) A containment system shall be designed and operated as follows:

(1) A base shall underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

(2) The base shall be sloped or the containment system shall be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

(3) The containment system shall have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

(4) Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity in addition to that required in Subsection R315-264-175(b)(3) to contain any run-on which might enter the system; and

(5) Spilled or leaked waste and accumulated precipitation shall be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

If the collected material is a hazardous waste under Rule R315-261, it shall be managed as a hazardous waste in accordance with all applicable requirements of Rules R315-262 through 266. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of section 402 of the Clean Water Act, as amended.

(c) Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by Subsection R315-264-175(b), except as provided by Subsection R315-264-175(d) or provided that:

(1) The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

(2) The containers are elevated or are otherwise protected from contact with accumulated liquid.

(d) Storage areas that store containers holding the wastes listed below that do not contain free liquids shall have a containment system defined by Subsection R315-264-175(b):

(1) F020, F021, F022, F023, F026 and F027.

R315-264-176. Special Requirements for Ignitable or Reactive Waste.

Containers holding ignitable or reactive waste shall be located at least 15 meters, 50 feet, from the facility's property line. See Subsection R315-264-17(a) for additional requirements.

R315-264-177. Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-264 for examples, shall not be placed in the same container, unless Subsection R35-264-17(b) is complied with.

(b) Hazardous waste shall not be placed in an unwashed container that previously held an incompatible waste or material. As required by Section R315-264-13, the waste analysis plan shall include analyses needed to comply with Section R315-264-177. Also, Subsection R315-264-17(c) requires wastes analyses, trial tests or other documentation to assure compliance with Subsection R315-264-17(b). As required by Section R315-264-73, the owner or operator shall place the results of each waste analysis and trial test, and any documented information, in the operating record of the facility.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. The purpose of Section R315-264-177 is to prevent fires, explosions, gaseous emission, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.

R315-264-178. Closure.

At closure, all hazardous waste and hazardous waste residues shall be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues shall be decontaminated or removed. At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with Subsection R315-261-3(d) that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Rules R315-262 through 266.

R315-264-179. Air Emission Standards.

The owner or operator shall manage all hazardous waste placed in a container in accordance with the applicable requirements of Sections R315-264-1030 through 1036, 1050 through 1065, and 1080 through 1090.

R315-264-190. Tank Systems - Applicability.

The requirements of Sections R315-264-190 through 200 apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in Subsections R315-264-190(a), (b), and (c) or in Section R315-264-1.

(a) Tank systems that are used to store or treat hazardous waste which contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in Section R315-264-193. To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test shall be used: Method 9095B, Paint Filter Liquids Test, as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in R315-260-11.

(b) Tank systems, including sumps, as defined in Section R315-260-10, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in Subsection R315-264-193(a).

(c) Tanks, sumps, and other such collection devices or systems used in conjunction with drip pads, as defined in Section R315-260-10 and regulated under Sections R315-264-570 through 575, shall meet the requirements of Sections R315-264-190 through 200.

R315-264-191. Tank Systems -- Assessment of Existing Tank System's Integrity.

(a) For each existing tank system that does not have secondary containment meeting the requirements of Section R315-264-193, the owner or operator shall determine that the tank system is not leaking or is otherwise fit for use. Except as provided in Subsection R315-264-191(c), the owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by a qualified Professional Engineer, in accordance with Subsection R315-270-11(d), that attests to the tank system's integrity.

(b) This assessment shall determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

(1) Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

(2) Hazardous characteristics of the waste(s) that have been and will be handled;

(3) Existing corrosion protection measures;

(4) Documented age of the tank system, if available (otherwise, an estimate of the age); and

(5) Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, the assessment shall include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects, and

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment shall include either a leak test, as described above, or other integrity examination that is certified by a qualified Professional Engineer in accordance with Subsection R315-270-11(d), that addresses cracks, leaks, corrosion, and erosion.

Note: The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines in conducting other than a leak test.

(c) Tank systems that store or treat materials that become hazardous wastes subsequent to July 14, 1986, shall conduct this assessment within 12 months after the date that the waste becomes a hazardous waste.

(d) If, as a result of the assessment conducted in accordance with Subsection R315-264-191(a), a tank system is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of Section R315-264-196.

R315-264-192. Design and Installation of New Tank Systems or Components.

(a) Owners or operators of new tank systems or components shall obtain and submit to the Director, at time of submittal of part B information, a written assessment, reviewed and certified by a qualified Professional Engineer, in accordance with Subsection R315-270-11(d), attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment shall show that the foundation, structural support, seams, connections, and pressure controls, if applicable, are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. This assessment, which shall be used by the Director to review and approve or disapprove the acceptability of the tank system design, shall include, at a minimum, the following information:

(1) Design standard(s) according to which tank(s) and/or the ancillary equipment are constructed;

(2) Hazardous characteristics of the waste(s) to be handled;

(3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, a determination by a corrosion expert of:

(i) Factors affecting the potential for corrosion, including but not limited to:

(A) Soil moisture content;

(B) Soil pH;

(C) Soil sulfides level;

(D) Soil resistivity;

(E) Structure to soil potential;

(F) Influence of nearby underground metal structures, e.g., piping;

(G) Existence of stray electric current;

(H) Existing corrosion-protection measures, e.g., coating, cathodic protection, and

(ii) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

(A) Corrosion-resistant materials of construction such as special alloys, fiberglass reinforced plastic, etc.;

(B) Corrosion-resistant coating, such as epoxy, fiberglass, etc., with cathodic protection, e.g., impressed current or sacrificial anodes; and

(C) Electrical isolation devices such as insulating joints, flanges, etc.

Note: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)-Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in providing corrosion protection for tank systems.

(4) For underground tank system components that are likely to be adversely affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

(5) Design considerations to ensure that:

(i) Tank foundations will maintain the load of a full tank;

(ii) Tank systems shall be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of Subsection R315-264-18(a); and

(iii) Tank systems shall withstand the effects of frost heave.

(b) The owner or operator of a new tank system shall ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified, installation inspector or a qualified Professional Engineer, either of whom is trained and experienced in the proper installation of tanks systems or components, shall inspect the system for the presence of any of the following items:

(1) Weld breaks;

(2) Punctures;

(3) Scrapes of protective coatings;

(4) Cracks;

(5) Corrosion;

(6) Other structural damage or inadequate construction/installation. All discrepancies shall be remedied before the tank system is covered, enclosed, or placed in use.

(c) New tank systems or components that are placed underground and that are backfilled shall be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

(d) All new tanks and ancillary equipment shall be tested for tightness prior to being covered, enclosed, or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system shall be performed prior to the tank system being covered, enclosed, or placed into use.

(e) Ancillary equipment shall be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

Note: The piping system installation procedures described in American Petroleum Institute (API) Publication 1615 (November 1979), "Installation of Underground Petroleum Storage Systems," or ANSI Standard B31.3, "Petroleum Refinery Piping," and ANSI Standard B31.4 "Liquid Petroleum Transportation Piping System," may be used, where applicable, as guidelines for proper installation of piping systems.

(f) The owner or operator shall provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided under Subsection R315-264-192(a)(3), or other corrosion protection if the Director believes other corrosion protection is necessary to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated shall be supervised by an independent corrosion expert to ensure proper installation.

(g) The owner or operator shall obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of Subsections R315-264-192(b) through (f), that attest that the tank system was properly designed and installed and that repairs, pursuant to Subsections R315-264-192(b) and (d), were performed. These written statements shall also include the certification statement as required in Subsection R315-270-11(d).

R315-264-193. Containment and Detection of Releases.

(a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of Section R315-264-193 shall be provided, except as provided in Subsections R315-264-193(f) and (g):

(1) For all new and existing tank systems or components, prior to their being put into service.

(2) For tank systems that store or treat materials that become hazardous wastes, within two years of the hazardous waste listing, or when the tank system has reached 15 years of age, whichever comes later.

(b) Secondary containment systems shall be:

(1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

(c) To meet the requirements of Subsection R315-264-193(b), secondary containment systems shall be at a minimum:

(1) Constructed of or lined with materials that are compatible with the wastes(s) to be placed in the tank system and shall have sufficient strength and thickness to prevent failure owing to pressure gradients, including static head and external hydrological forces, physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation, including stresses from nearby vehicular traffic.

(2) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;

(3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the owner or operator can demonstrate to the Director that existing detection technologies or site conditions shall not allow detection of a release within 24 hours; and

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the owner or operator can demonstrate to the Director that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

Note: If the collected material is a hazardous waste under Rule R315-261, it is subject to management as a hazardous waste in accordance with all applicable requirements of Rules R315-262 through 265. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If

discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of section 307 of the Clean Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302.

(d) Secondary containment for tanks shall include one or more of the following devices:

(1) A liner, external to the tank;

(2) A vault;

(3) A double-walled tank; or

(4) An equivalent device as approved by the Director.

(e) In addition to the requirements of Subsections R315-264-193(b), (c), and (d), secondary containment systems shall satisfy the following requirements:

(1) External liner systems shall be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(iii) Free of cracks or gaps; and

(iv) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s), i.e., capable of preventing lateral as well as vertical migration of the waste.

(2) Vault systems shall be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Constructed with chemical-resistant water stops in place at all joints, if any;

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored waste and that shall prevent migration of waste into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:

(A) Meets the definition of ignitable waste under Section R315-261-21; or

(B) Meets the definition of reactive waste under Section R315-261-23, and may form an ignitable or explosive vapor; and

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

(3) Double-walled tanks shall be:

(i) Designed as an integral structure, i.e., an inner tank completely enveloped within an outer shell, so that any release from the inner tank is contained by the outer shell;

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and

(iii) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time, if the owner or operator can demonstrate to the Director, and the Director concludes, that the existing detection technology or site conditions would not allow detection of a release within 24 hours.

Note: The provisions outlined in the Steel Tank Institute's (STI) "Standard for Dual Wall Underground Steel Storage Tanks" may be used as guidelines for aspects of the design of underground steel double-walled tanks.

(f) Ancillary equipment shall be provided with secondary containment, e.g., trench, jacketing, double-walled piping, that meets the requirements of Subsections R315-264-193(b) and (c) except for:

(1) Aboveground piping, exclusive of flanges, joints, valves, and other connections, that are visually inspected for leaks on a daily basis;

(2) Welded flanges, welded joints, and welded connections, that are visually inspected for leaks on a daily basis;

(3) Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

(4) Pressurized aboveground piping systems with automatic shut-off devices, e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices, that are visually inspected for leaks on a daily basis.

(g) The owner or operator may obtain a variance from the requirements Section R315-264-193 if the Director finds, as a result of a demonstration by the owner or operator that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous waste or hazardous constituents into the ground water; or surface water at least as effectively as secondary containment during the active life of the tank system or that in the event of a release that does migrate to ground water or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with Subsection R315-264-193(g)(2), be exempted from the secondary containment requirements Section R315-264-193.

(1) In deciding whether to grant a variance based on a demonstration of equivalent protection of ground water and surface water, the Director shall consider:

(i) The nature and quantity of the wastes;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the thickness of soils present between the tank system and ground water; and

(iv) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to ground water or surface water.

(2) In deciding whether to grant a variance based on a demonstration of no substantial present or potential hazard, the Director shall consider:

(i) The potential adverse effects on ground water, surface water, and land quality taking into account:

(A) The physical and chemical characteristics of the waste in the tank system, including its potential for migration,

(B) The hydrogeological characteristics of the facility and surrounding land,

(C) The potential for health risks caused by human exposure to waste constituents,

(D) The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents, and

(E) The persistence and permanence of the potential adverse effects;

(ii) The potential adverse effects of a release on ground-water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The proximity and withdrawal rates of ground-water users,

(C) The current and future uses of ground water in the area, and

(D) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(iii) The potential adverse effects of a release on surface water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The patterns of rainfall in the region,

(C) The proximity of the tank system to surface waters,

(D) The current and future uses of surface waters in the area and any water quality standards established for those surface waters, and

(E) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality; and

(iv) The potential adverse effects of a release on the land surrounding the tank system, taking into account:

(A) The patterns of rainfall in the region, and

(B) The current and future uses of the surrounding land.

(3) The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of Subsection R315-264-193(g)(1), at which a release of hazardous waste has occurred from the primary tank system but has not migrated beyond the zone of engineering control, as established in the variance, shall:

(i) Comply with the requirements of Section R315-264-196, except Subsection R315-264-193(d), and

(ii) Decontaminate or remove contaminated soil to the extent necessary to:

(A) Enable the tank system for which the variance was granted to resume operation with the capability for the detection of releases at least equivalent to the capability it had prior to the release; and

(B) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water; and

(iii) If contaminated soil cannot be removed or decontaminated in accordance with Subsection R315-264-193(g)(3)(ii), comply with the requirement of Subsection R315-264-197(b).

(4) The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with the requirements of Subsection R315-264-193(g)(1), at which a release of hazardous waste has occurred from the primary tank system and has migrated beyond the zone of engineering control,as established in the variance, shall:

(i) Comply with the requirements of Subsections R315-264-196(a), (b), (c), and (d); and

(ii) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed or if ground water has been contaminated, the owner or operator shall comply with the requirements of Subsection R315-264-197(b); and

(iii) If repairing, replacing, or reinstalling the tank system, provide secondary containment in accordance with the requirements of Subsections R315-264-193(a) through (f) or reapply for a variance from secondary containment and meet the requirements for new tank systems in Section R315-264-192 if the tank system is replaced. The owner or operator shall comply with these requirements even if contaminated soil can be decontaminated or removed and ground water or surface water has not been contaminated.

(h) The following procedures shall be followed in order to request a variance from secondary containment:

(1) The Director shall be notified in writing by the owner or operator that he intends to conduct and submit a demonstration for a variance from secondary containment as allowed in Subsection R315-264-193(g) according to the following schedule:

(i) For existing tank systems, at least 24 months prior to the date that secondary containment shall be provided in accordance with Subsection R315-264-193(a).

(ii) For new tank systems, at least 30 days prior to entering into a contract for installation.

(2) As part of the notification, the owner or operator shall also submit to the Director a description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration shall address each of the factors listed in Subsection R315-264-193(g)(1) or (g)(2);

(3) The demonstration for a variance shall be completed within 180 days after notifying the Director of an intent to conduct the demonstration; and

(4) If a variance is granted under Subsection R315-264-193(h), the Director shall require the permittee to construct and operate the tank system in the manner that was demonstrated to meet the requirements for the variance.

(i) All tank systems, until such time as secondary containment that meets the requirements Section R315-264-193 is provided,

shall comply with the following:

(1) For non-enterable underground tanks, a leak test that meets the requirements of Subsection R315-264-191(b)(5) or other tank integrity method, as approved or required by the Director, shall be conducted at least annually.

(2) For other than non-enterable underground tanks, the owner or operator shall either conduct a leak test as in Subsection R315-264-193(i)(1) or develop a schedule and procedure for an assessment of the overall condition of the tank system by a qualified Professional Engineer. The schedule and procedure shall be adequate to detect obvious cracks, leaks, and corrosion or erosion that may lead to cracks and leaks. The owner or operator shall remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed. The frequency of these assessments shall be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection, and the characteristics of the waste being stored or treated.

(3) For ancillary equipment, a leak test or other integrity assessment as approved by the Director shall be conducted at least annually.

Note: The practices described in the American Petroleum Institute (API) Publication Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines for assessing the overall condition of the tank system.

(4) The owner or operator shall maintain on file at the facility a record of the results of the assessments conducted in accordance with Subsections R315-264-193(i)(1) through (i)(3).

(5) If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in Subsections R315-264-193(i)(1) through (i)(3), the owner or operator shall comply with the requirements of Section R315-264-196.

R315-264-194. General Operating Requirements.

(a) Hazardous wastes or treatment reagents shall not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

(b) The owner or operator shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include at a minimum:

(1) Spill prevention controls, e.g., check valves, dry disconnect couplings;

(2) Overfill prevention controls, e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank; and

(3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) The owner or operator shall comply with the requirements of Section R315-264-196 if a leak or spill occurs in the tank system.

R315-264-195. Tank Systems -- Inspections.

(a) The owner or operator shall develop and follow a schedule and procedure for inspecting overfill controls.

(b) The owner or operator shall inspect at least once each operating day data gathered from monitoring and leak detection equipment, e.g., pressure or temperature gauges, monitoring wells, to ensure that the tank system is being operated according to its design.

Note: Subsection R315-264-15(c) requires the owner or operator to remedy any deterioration or malfunction he finds. Section R315-264-196 requires the owner or operator to notify the Director within 24 hours of confirming a leak. Also, 40 CFR part 302 may require the owner or operator to notify the National Response Center of a release.

(c) In addition, except as noted under Subsection R315-264-195(d), the owner or operator shall inspect at least once each operating day:

(1) Above ground portions of the tank system, if any, to detect corrosion or releases of waste.

(2) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, e.g., dikes, to detect erosion or signs of releases of hazardous waste, e.g., wet spots, dead vegetation.

(d) Owners or operators of tank systems that either use leak detection systems to alert facility personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, shall inspect at least weekly those areas described in Subsections R315-264-195(c)(1) and (c)(2). Use of the alternate inspection schedule shall be documented in the facility's operating record. This documentation shall include a description of the established workplace practices at the facility.

(e) Reserved

(f) Ancillary equipment that is not provided with secondary containment, as described in Subsections R315-264-193(f)(1) through (4), shall be inspected at least once each operating day.

(g) The owner or operator shall inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

(1) The proper operation of the cathodic protection system shall be confirmed within six months after initial installation and annually thereafter; and

(2) All sources of impressed current shall be inspected and/or tested, as appropriate, at least bimonthly, i.e., every other month.

Note: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)-Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.

(h) The owner or operator shall document in the operating record of the facility an inspection of those items in Subsections R315-

264-195(a) through (c).

R315-264-196. Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems.

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, shall be removed from service immediately, and the owner or operator shall satisfy the following requirements:

(a) Cessation of use; prevent flow or addition of wastes. The owner or operator shall immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) Removal of waste from tank system or secondary containment system.

(1) If the release was from the tank system, the owner/operator shall, within 24 hours after detection of the leak or, if the owner/operator demonstrates that it is not possible, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

(2) If the material released was to a secondary containment system, all released materials shall be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Containment of visible releases to the environment. The owner/operator shall immediately conduct a visual inspection of the release and, based upon that inspection:

(1) Prevent further migration of the leak or spill to soils or surface water; and

(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) Notifications, reports.

(1) Any release to the environment, except as provided in Subsection R315-264-196(d)(2), shall be reported to the Director within 24 hours of its detection. If the release has been reported pursuant to 40 CFR part 302, that report shall satisfy this requirement.

(2) A leak or spill of hazardous waste is exempted from the requirements of Subsection R315-264-196(d) if it is:

(i) Less than or equal to a quantity of one (1) pound, and

(ii) Immediately contained and cleaned up.

(3) Within 30 days of detection of a release to the environment, a report containing the following information shall be submitted to the Director:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil, soil composition, geology, hydrogeology, climate;

(iii) Results of any monitoring or sampling conducted in connection with the release, if available. If sampling or monitoring data relating to the release are not available within 30 days, these data shall be submitted to the Director as soon as they become available.

(iv) Proximity to downgradient drinking water, surface water, and populated areas; and

(v) Description of response actions taken or planned.

(e) Provision of secondary containment, repair, or closure.

(1) Unless the owner/operator satisfies the requirements of Subsection R315-264-196(e)(2) through (4), the tank system shall be closed in accordance with Section R315-264-197.

(2) If the cause of the release was a spill that has not damaged the integrity of the system, the owner/operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system shall be repaired prior to returning the tank system to service.

(4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner/operator shall provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of Section R315-264-193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component shall be repaired and may be returned to service without secondary containment as long as the requirements of Subsection R315-264-196(f) are satisfied. If a component is replaced to comply with the requirements of Subsection R315-264-196(e)(4), that component shall satisfy the requirements for new tank systems or components in Sections R315-264-192 and 193. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection, e.g., the bottom of an inground or onground tank, the entire component shall be provided with secondary containment in accordance with Section R315-264-193 prior to being returned to use.

(f) Certification of major repairs. If the owner/operator has repaired a tank system in accordance with Subsection R315-264-196(e), and the repair has been extensive, e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel, the tank system shall not be returned to service unless the owner/operator has obtained a certification by a qualified Professional Engineer in accordance with Subsection R315-270-11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification shall be placed in the operating record and maintained until closure of the facility.

Note: The Director may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order requiring corrective action or such other response as deemed necessary to protect human health or the environment.

Note: See Subsection R315-264-15(c) for the requirements necessary to remedy a failure. Also, 40 CFR part 302 may require the owner or operator to notify the National Response Center of certain releases.

R315-264-197. Closure and Post-Closure Care.

(a) At closure of a tank system, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, liners, etc., contaminated soils, and structures and equipment contaminated with waste, and manage them

as hazardous waste, unless Subsection R315-261-3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems shall meet all of the requirements specified in Sections R315-264-110 through 120, 140 through 151.

(b) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in Subsection R315-264-197(a), then the owner or operator shall close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, Subsection R315-264-310. In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator shall meet all of the requirements for landfills specified in Sections R315-264-110 through 120, 140 through 151.

(c) If an owner or operator has a tank system that does not have secondary containment that meets the requirements of Subsections R315-264-193(b) through (f) and has not been granted a variance from the secondary containment requirements in accordance with Subsection R315-264-193(g), then:

(1) The closure plan for the tank system shall include both a plan for complying with Subsection R315-264-197(a) and a contingent plan for complying with Subsection R315-264-197(b).

(2) A contingent post-closure plan for complying with Subsection R315-264-197(b) shall be prepared and submitted as part of the permit application.

(3) The cost estimates calculated for closure and post-closure care shall reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if those costs are greater than the costs of complying with the closure plan prepared for the expected closure under Subsection R315-264-197(a).

(4) Financial assurance shall be based on the cost estimates in Subsection R315-264-197(c)(3).

(5) For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans shall meet all of the closure, post-closure, and financial responsibility requirements for landfills under Sections R315-264-110 through 120, 140 through 148, and 151.

R315-264-198. Special Requirements for Ignitable or Reactive Wastes.

(a) Ignitable or reactive waste shall not be placed in tank systems, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:

(i) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23, and

(ii) Subsection R315-264-17(b) is complied with; or

(2) The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(3) The tank system is used solely for emergencies.

(b) The owner or operator of a facility where ignitable or reactive waste is stored or treated in a tank shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981), incorporated by reference, see Section R315-260-11.

R315-264-199. Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible wastes and materials, shall not be placed in the same tank system, unless Subsection R315-264-17(b) is complied with.

(b) Hazardous waste shall not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless Subsection R315-264-17(b) is complied with.

R315-264-200. Air Emission Standards.

The owner or operator shall manage all hazardous waste placed in a tank in accordance with the applicable requirements of Sections R315-264-1030 through 1036, 1050 through 1065 and 1080 through 1090.

R315-264-220. Surface Impoundments -- Applicability.

The regulations in Sections R315-264-220 through 223 and 226 through 232 apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste except as Section R315-264-1 provides otherwise.

R315-264-221. Design and Operating Requirements.

(a) Any surface impoundment that is not covered by Subsection R315-264-221(c) or R315-265-221(c) shall have a liner for each portion of the impoundment, except for existing portions of the impoundments. The liner shall be designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or ground water or surface water at any time during the active life, including the closure period, of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner, but not into the adjacent subsurface soil or ground water or surface water, during the active life of the facility, as long as the impoundment is closed in accordance with Subsection R315-264-228(a)(1). For impoundments that will be closed in accordance with Subsection R315-264-228(a)(2), the liner shall be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner shall be:

(1) constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces, physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(2) placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(3) installed to cover any surrounding earth likely to be in contact with the waste or leachate.

(b) The owner or operator shall be exempted from the requirements of Subsection R315-264-221(a) if the director finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, shall prevent the migration of any hazardous constituents, see Section R315-264-93, into the ground water or surface water at any future time. In deciding whether to grant an exemption, the director shall consider:

(1) the nature and quantity of the wastes;

(2) the proposed alternate design and operation;

(3) the hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the impoundment and ground water or surface water; and

(4) any other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator of each new surface impoundment unit on which construction commences after January 29, 1992, each lateral expansion of a surface impoundment unit on which construction commences after July 29, 1992 and each replacement of an existing surface impoundment unit that is to commence reuse after July 29, 1992 shall install two or more liners and a leachate collection and removal system between the liners. "Construction commences" is as defined in Section R315-260-10 under "existing facility."

(1)(i) The liner system shall include:

(A) a top liner designed and constructed of materials, that is, a geomembrane, to prevent the migration of hazardous constituents into the liner during the active life and post-closure care period; and

(B) a composite bottom liner, consisting of at least two components. The upper component shall be designed and constructed of materials, that is, a geomembrane, to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component shall be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component shall be constructed of at least 3 feet, 91 cm, of compacted soil material with a hydraulic conductivity of no more than $1x10^{-7}$ cm/sec.

(ii) The liners shall comply with Subsections R315-264-221(a)(1), R315-264-221(a)(2), and R315-264-221(a)(3).

(2) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system shall be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through any area of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in Subsection R315-264-221(c)(2) are satisfied by installation of a system that is, at a minimum:

(i) constructed with a bottom slope of 1% or more;

(ii) constructed of granular drainage materials with a hydraulic conductivity of $1x10^{-1}$ cm/sec or more and a thickness of 12 inches, 30.5 cm, or more or constructed of synthetic or geonet drainage materials with a transmissivity of $3x10^{-4}$ m^2/sec or more;

(iii) constructed of materials that are chemically resistant to the waste managed in the surface impoundment and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes and any waste cover materials or equipment used at the surface impoundment;

(iv) designed and operated to minimize clogging during the active life and post-closure care period; and

(v) constructed with sumps and liquid removal methods, that is, pumps, of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit shall have its own sump or sumps. The design of each sump and removal system shall provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

(3) The owner or operator shall collect and remove pumpable liquids in the sumps to minimize the head on the bottom liner.

(4) The owner or operator of a leak detection system that is not located completely above the seasonal high water table shall demonstrate that the operation of the leak detection system will not be adversely affected by the presence of ground water.

(d) The director may approve alternative design or operating practices to those specified in Subsection R315-264-221(c) if the owner or operator demonstrates to the director that the design and operating practices, together with location characteristics:

(1) Will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal system specified in Subsection R315-264-221(c); and

(2) Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

(e) The double liner requirement set forth in Subsection R315-264-221(c) may be waived by the director for any monofill, if:

(1) the monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and the wastes do not contain constituents which would make the wastes hazardous for reasons other than the toxicity characteristic in Section R315-261-24; and

(2)(i)(A) the monofill has at least one liner for which there is no evidence that the liner is leaking. For Subsection R315-264-221(e), the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility. In the case of any surface impoundment which has been exempted from the requirements of Subsection R315-264-221(c) on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of the impoundment, the owner or operator shall remove or decontaminate any waste residues, any contaminated liner

material, and contaminated soil to the extent practicable. If any contaminated soil is not removed or decontaminated, the owner or operator of the impoundment will comply with appropriate post-closure requirements, including ground-water monitoring and corrective action;

(B) the monofill is located more than one-quarter mile from an "underground source of drinking water," as that term is defined in Section R315-270-2; and

(C) the monofill is in compliance with generally applicable ground-water monitoring requirements for facilities with permits under Section 19-6-108; or

(ii) the owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(f) The owner or operator of any replacement surface impoundment unit is exempt from Subsection R315-264-221(c) if:

(1) the existing unit was constructed in compliance with the design standards of sections 3004 (o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and

(2) there is no reason to believe that the liner is not functioning as designed.

(g) A surface impoundment shall be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations, overfilling, wind and wave action, rainfall, run-on, malfunctions of level controllers, alarms, and other equipment, and human error.

(h) A surface impoundment shall have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it shall not be presumed that the liner system will function without leakage during the active life of the unit.

(i) The director shall specify in the permit any design and operating practices that are necessary to ensure that the requirements of Section R315-264-221 are satisfied.

R315-264-222. Action Leakage Rate.

(a) The Director shall approve an action leakage rate for surface impoundment units subject to Subsections R315-264221(c) or (d). The action leakage rate is the maximum design flow rate that the leak detection system can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, e.g., slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the leak detection system, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the leak detection system, and proposed response actions, e.g., the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(b) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly or monthly flow rate from the monitoring data obtained under Subsection R315-264-226(d) to an average daily flow rate, gallons per acre per day, for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period, and if the unit is closed in accordance with Subsection R315-264-228(b), monthly during the post-closure care period when monthly monitoring is required under Subsection R315-264-226(d).

R315-264-223. Response Actions.

(a) The owner or operator of surface impoundment units subject to Subsection R315-264-221(c) or (d) shall have an approved response action plan before receipt of waste. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in Subsection R315-264-223(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Director in writing of the exceedance within 7 days of the determination;

(2) Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in Subsections R315-264-223(b)(3), (4), and (5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in Subsections R315-264-223(b)(3), (4), and (5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

R315-264-226. Monitoring and Inspection.

(a) During construction and installation, liners, except in the case of existing portions of surface impoundments exempt from

Subsection R315-264-221(a), and cover systems, e.g., membranes, sheets, or coatings, shall be inspected for uniformity, damage, and imperfections, e.g., holes, cracks, thin spots, or foreign materials. Immediately after construction or installation:

(1) Synthetic liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers shall be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a surface impoundment is in operation, it shall be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of overtopping control systems;

(2) Sudden drops in the level of the impoundment's contents; and

(3) Severe erosion or other signs of deterioration in dikes or other containment devices.

(c) Prior to the issuance of a permit, and after any extended period of time, at least six months, during which the impoundment was not in service, the owner or operator shall obtain a certification from a qualified engineer that the impoundment's dike, including that portion of any dike which provides freeboard, has structural integrity. The certification shall establish, in particular, that the dike:

(1) Will withstand the stress of the pressure exerted by the types and amounts of wastes to be placed in the impoundment; and

(2) Will not fail due to scouring or piping, without dependence on any liner system included in the surface impoundment construction.

(d)(1) An owner or operator required to have a leak detection system under Subsection R315-264-221(c) or (d) shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(2) After the final cover is installed, the amount of liquids removed from each leak detection system sump shall be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps shall be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps shall be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator shall return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(3) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

R315-264-227. Emergency Repairs; Contingency Plans.

(a) A surface impoundment shall be removed from service in accordance with Subsection R315-264-227(b) when:

(1) The level of liquids in the impoundment suddenly drops and the drop is not known to be caused by changes in the flows into or out of the impoundment; or

(2) The dike leaks.

(b) When a surface impoundment shall be removed from service as required by Subsection R315-264-227(a), the owner or operator shall:

(1) Immediately shut off the flow or stop the addition of wastes into the impoundment;

(2) Immediately contain any surface leakage which has occurred or is occurring;

(3) Immediately stop the leak;

(4) Take any other necessary steps to stop or prevent catastrophic failure;

(5) If a leak cannot be stopped by any other means, empty the impoundment; and

(6) Notify the Director of the problem in writing within seven days after detecting the problem.

(c) As part of the contingency plan required in Sections R315-264-50 through 56, the owner or operator shall specify a procedure for complying with the requirements of Subsection R315-264-227(b).

(d) No surface impoundment that has been removed from service in accordance with the requirements of Section R315-264-227 may be restored to service unless the portion of the impoundment which was failing is repaired and the following steps are taken:

(1) If the impoundment was removed from service as the result of actual or imminent dike failure, the dike's structural integrity shall be recertified in accordance with Subsection R315-264-226(c).

(2) If the impoundment was removed from service as the result of a sudden drop in the liquid level, then:

(i) For any existing portion of the impoundment, a liner shall be installed in compliance with Subsection R315-264-221(a); and

(ii) For any other portion of the impoundment, the repaired liner system shall be certified by a qualified engineer as meeting the design specifications approved in the permit.

(e) A surface impoundment that has been removed from service in accordance with the requirements of Section R315-264-227 and that is not being repaired shall be closed in accordance with the provisions of Section R315-264-228.

R315-264-228. Closure and Post-Closure Care.

(a) At closure, the owner or operator shall:

(1) Remove or decontaminate all waste residues, contaminated containment system components, liners, etc., contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Subsection R315-261-3(d) applies; or

(2)(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support final cover; and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(A) Provide long-term minimization of the migration of liquids through the closed impoundment;

(B) Function with minimum maintenance;

(C) Promote drainage and minimize erosion or abrasion of the final cover;

(D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) If some waste residues or contaminated materials are left in place at final closure, the owner or operator shall comply with all post-closure requirements contained in Sections R315-264-117 through 120, including maintenance and monitoring throughout the post-closure care period, specified in the permit under Section R315-264-117. The owner or operator shall:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the leak detection system in accordance with Subsections R315-264-221(c)(2)(iv) and (3) and 226(d), and comply with all other applicable leak detection system requirements of Rule R315-264;

(3) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Sections R315-264-90 through 101; and

(4) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

(c)(1) If an owner or operator plans to close a surface impoundment in accordance with Subsection R315-264-228(a)(1), and the impoundment does not comply with the liner requirements of Subsection R315-264-221(a) and is not exempt from them in accordance with Subsection R315-264-221(b), then:

(i) The closure plan for the impoundment under Section R315-264-112 shall include both a plan for complying with Subsection R315-264-228(a)(1) and a contingent plan for complying with Subsection R315-264-228(a)(2) in case not all contaminated subsoils can be practicably removed at closure; and

(ii) The owner or operator shall prepare a contingent post-closure plan under Section R315-264-118 for complying with Subsection R315-264-228(b) in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under Sections R315-264-142 and 264-144 for closure and post-closure care of an impoundment subject to Subsection R315-264-228(c) shall include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under Subsection R315-264-228(a)(1).

R315-264-229. Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste shall not be placed in a surface impoundment, unless the waste and impoundment satisfy all applicable requirements of Rule R315-268, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23; and

(2) Subsection R315-264-17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

(c) The surface impoundment is used solely for emergencies.

R315-264-230. Special Requirements for Incompatible Wastes.

Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-264 for examples, shall not be placed in the same surface impoundment, unless Subsection R315-264-17(b) is complied with.

R315-264-231. Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027.

(a) Hazardous Wastes F020, F021, F022, F023, F026, and F027 shall not be placed in a surface impoundment unless the owner or operator operates the surface impoundment in accordance with a management plan for these wastes that is approved by the Director pursuant to the standards set out in Subsection R315-264-231(a), and in accord with all other applicable requirements of Rule R315-264. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Director may determine that additional design, operating, and monitoring requirements are necessary for surface impoundments managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

R315-264-232. Air Emission Standards.

The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the applicable requirements of Sections R315-264-1050 through 1065 and 1080 through 1090.

R315-264-250. Waste Piles -- Applicability.

(a) The regulations in Sections R315-264-250 through 254 and 256 through 259 apply to owners and operators of facilities that store or treat hazardous waste in piles, except as Section R315-264-1 provides otherwise.

(b) The regulations in Sections R315-264-250 through 254 and 256 through 259 do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under Sections R315-264-300 through 304, 309 and 310, and 312 through 317, Landfills.

(c) The owner or operator of any waste pile that is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated is not subject to regulation under Section R315-264-251 or under Sections R315-264-90 through 101, provided that:

(1) Liquids or materials containing free liquids are not placed in the pile;

(2) The pile is protected from surface water run-on by the structure or in some other manner;

(3) The pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and

(4) The pile will not generate leachate through decomposition or other reactions.

R315-264-251. Design and Operating Requirements.

(a) A waste pile, except for an existing portion of a waste pile, shall have:

(1) a liner that is designed, constructed, and installed to prevent any migration of wastes out of the pile into the adjacent subsurface soil or ground water or surface water at any time during the active life, including the closure period, of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself, but not into the adjacent subsurface soil or ground water or surface water, during the active life of the facility. The liner shall be:

(i) constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces, physical contact with the waste or leachate that they are exposed to, climatic conditions, the stress of installation, and the stress of daily operation;

(ii) placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(iii) installed to cover the surrounding earth likely to be in contact with the waste or leachate; and

(2) a leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the pile. The director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall be:

(i) constructed of materials that are:

(A) chemically resistant to the waste managed in the pile and the leachate expected to be generated; and

(B) of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying wastes, waste cover materials, and by any equipment used at the pile; and

(ii) designed and operated to function without clogging through the scheduled closure of the waste pile.

(b) The owner or operator shall be exempted from the requirements of Subsection R315-264-251(a), if the director finds, based on a demonstration by the owner or operator, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents, see Section R315-264-93, into the ground water or surface water at any future time. In deciding whether to grant an exemption, the director shall consider:

(1) the nature and quantity of the wastes;

(2) the proposed alternate design and operation;

(3) the hydrogeologic setting of the facility, including attenuative capacity and thickness of the liners and soils present between the pile and ground water or surface water; and

(4) any other factors that would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator of each new waste pile unit, each lateral expansion of a waste pile unit, and each replacement of an existing waste pile unit shall install two or more liners and a leachate collection and removal system above and between the liners.

(1)(i) The liner system shall include:

(A) a top liner designed and constructed of materials, for example a geomembrane, to prevent the migration of hazardous constituents into the liner during the active life and post-closure care period; and

(B) a composite bottom liner, consisting of at least two components. The upper component shall be designed and constructed of materials, for example a geomembrane, to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component shall be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component shall be constructed of at least three feet, 91 cm, of compacted soil material with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

(ii) The liners shall comply with Subsections R315-264-251(a)(1)(i), R315-264-251(a)(1)(ii), and R315-264-251(a)(1)(iii).

(2) The leachate collection and removal system immediately above the top liner shall be designed, constructed, operated, and maintained to collect and remove leachate from the waste pile during the active life and post-closure care period. The director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall comply with Subsections R315-264-251(c)(3)(iii) and R315-264-251(c)(3)(iv).

(3) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system shall be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through the areas of the top liner

likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in Subsection R315-264-251(c) are satisfied by installation of a system that is, at a minimum:

(i) constructed with a bottom slope of 1% or more;

(ii) constructed of granular drainage materials with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches, 30.5 cm, or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} m^2/sec or more;

(iii) constructed of materials that are chemically resistant to the waste managed in the waste pile and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the waste pile;

(iv) designed and operated to minimize clogging during the active life and post-closure care period; and

(v) constructed with sumps and liquid removal methods, for example pumps, of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit shall have its own sump or sumps. The design of each sump and removal system shall provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

(4) The owner or operator shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.

(5) The owner or operator of a leak detection system that is not located completely above the seasonal high water table shall demonstrate that the operation of the leak detection system will not be adversely affected by the presence of ground water.

(d) The director may approve alternative design or operating practices to those specified in Subsection R315-264-251(c) if the owner or operator demonstrates to the director that the design and operating practices, together with location characteristics:

(1) will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal systems specified in Subsection R315-264-251(c); and

(2) will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

(e) Subsection R315-264-251(c) does not apply to monofills that are granted a waiver by the director in accordance with Subsection R315-264-221(e).

(f) The owner or operator of any replacement waste pile unit is exempt from Subsection R315-264-251(c) if:

(1) the existing unit was constructed in compliance with the design standards of Sections 3004(o)(1)(A)(i) and 3004(o)(5) of the Resource Conservation and Recovery Act; and

(2) there is no reason to believe that the liner is not functioning as designed.

(g) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm.

(h) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(i) Collection and holding facilities, for example tanks or basins, associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(j) If the pile contains any particulate matter that may be subject to wind dispersal, the owner or operator shall cover or otherwise manage the pile to control wind dispersal.

(k) The director shall specify in the permit the design and operating practices that are necessary to ensure that the requirements of Section R315-264-251 are satisfied.

R315-264-252. Action Leakage Rate.

(a) The Director shall approve an action leakage rate for waste pile units subject to Subsections R315-264-251(c) or (d). The action leakage rate is the maximum design flow rate that the leak detection system can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, e.g., slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the leak detection system, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the leak detection system, and proposed response actions, e.g., the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(b) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly flow rate from the monitoring data obtained under Subsection R315-264-254(c) to an average daily flow rate, gallons per acre per day, for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period.

R315-264-253. Response Actions.

(a) The owner or operator of waste pile units subject to Subsections R315-264-251(c) or (d) shall have an approved response action plan before receipt of waste. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in Subsection R315-264-253(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Director in writing of the exceedance within 7 days of the determination;

(2) Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for

inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and long-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in Subsections R315-264-253(b)(3), (4), and (5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in Subsections R315-264-253(b)(3), (4), and (5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

R315-264-254. Monitoring and Inspection.

(a) During construction or installation, liners, except in the case of existing portions of piles exempt from Subsection R315-264-251(a), and cover systems, e.g., membranes, sheets, or coatings, shall be inspected for uniformity, damage, and imperfections, e.g., holes, cracks, thin spots, or foreign materials. Immediately after construction or installation:

(1) Synthetic liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers shall be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a waste pile is in operation, it shall be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(2) Proper functioning of wind dispersal control systems, where present; and

(3) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

(c) An owner or operator required to have a leak detection system under Subsection R315-264-251(c) shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

R315-264-256. Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste shall not be placed in a waste pile unless the waste and waste pile satisfy all applicable requirements of Rule R315-268, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the pile so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23; and

(2) Subsection R315-264-17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

R315-264-257. Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-264 for examples, shall not be placed in the same pile, unless Subsection R315-264-17(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in containers, other piles, open tanks, or surface impoundments shall be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

(c) Hazardous waste shall not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with Subsection R315-264-17(b).

R315-264-258. Closure and Post-Closure Care.

(a) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, liners, etc., contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Subsection R315-261-3(d) applies.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-264-258(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall close the facility and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, Section R315-264-310.

(c)(1) The owner or operator of a waste pile that does not comply with the liner requirements of Subsection R315-264-251(a)(1) and is not exempt from them in accordance with Subsections R315-264-250(c) or 251(b), shall:

(i) Include in the closure plan for the pile under Section R315-264-112 both a plan for complying with Subsection R315-264-258(a) and a contingent plan for complying with Subsection R315-264-258(b) in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under Section R315-264-118 for complying with Subsection R315-264-258(b) in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under Sections R315-264-142 and 144 for closure and post-closure care of a pile subject to this Subsection R315-264-258(c) shall include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under Subsection R315-264-258(a).

R315-264-259. Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027.

(a) Hazardous Wastes F020, F021, F022, F023, F026, and F027 shall not be placed in waste piles that are not enclosed, as defined in Subsection R315-264-250(c), unless the owner or operator operates the waste pile in accordance with a management plan for these wastes that is approved by the Director pursuant to the standards set out in Subsection R315-264-259(a), and in accord with all other applicable requirements of Rule R315-264. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Director may determine that additional design, operating, and monitoring requirements are necessary for piles managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

R315-264-270. Land Treatment -- Applicability.

The regulations in Sections R315-264-270 through 283 apply to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units, except as Section R315-264-1 provides otherwise.

R315-264-271. Treatment Program.

(a) An owner or operator subject to Sections R315-264-270 through 283 shall establish a land treatment program that is designed to ensure that hazardous constituents placed in or on the treatment zone are degraded, transformed, or immobilized within the treatment zone. The Director shall specify in the facility permit the elements of the treatment program, including:

(1) The wastes that are capable of being treated at the unit based on a demonstration under Section R315-264-272;

(2) Design measures and operating practices necessary to maximize the success of degradation, transformation, and immobilization processes in the treatment zone in accordance with Subsection R315-264-273(a); and

(3) Unsaturated zone monitoring provisions meeting the requirements of Section R315-264-278.

(b) The Director shall specify in the facility permit the hazardous constituents that shall be degraded, transformed, or immobilized under Sections R315-264-270 through 283. Hazardous constituents are constituents identified in appendix VIII of Rule R315-261 that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(c) The Director shall specify the vertical and horizontal dimensions of the treatment zone in the facility permit. The treatment zone is the portion of the unsaturated zone below and including the land surface in which the owner or operator intends to maintain the conditions necessary for effective degradation, transformation, or immobilization of hazardous constituents. The maximum depth of the treatment zone shall be:

(1) No more than 1.5 meters, 5 feet, from the initial soil surface; and

(2) More than 1 meter, 3 feet, above the seasonal high water table.

R315-264-272. Treatment Demonstration.

(a) For each waste that will be applied to the treatment zone, the owner or operator shall demonstrate, prior to application of the waste, that hazardous constituents in the waste can be completely degraded, transformed, or immobilized in the treatment zone.

(b) In making this demonstration, the owner or operator may use field tests, laboratory analyses, available data, or, in the case of existing units, operating data. If the owner or operator intends to conduct field tests or laboratory analyses in order to make the demonstration required under Subsection R315-264-272(a), he shall obtain a treatment or disposal permit under Section R315-270-63. The Director shall specify in this permit the testing, analytical, design, and operating requirements, including the duration of the tests and analyses, and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone, monitoring procedures, closure and clean-up activities, necessary to meet the requirements in Subsection R315-264-272(c).

(c) Any field test or laboratory analysis conducted in order to make a demonstration under Subsection R315-264-272(a) shall:

(1) Accurately simulate the characteristics and operating conditions for the proposed land treatment unit including:

(i) The characteristics of the waste, including the presence of appendix VIII of Rule R315-261 constituents;

(ii) The climate in the area;

(iii) The topography of the surrounding area;

(iv) The characteristics of the soil in the treatment zone, including depth; and

(v) The operating practices to be used at the unit.

(2) Be likely to show that hazardous constituents in the waste to be tested will be completely degraded, transformed, or immobilized in the treatment zone of the proposed land treatment unit; and

(3) Be conducted in a manner that protects human health and the environment considering:

(i) The characteristics of the waste to be tested;

(ii) The operating and monitoring measures taken during the course of the test;

(iii) The duration of the test;

(iv) The volume of waste used in the test;

(v) In the case of field tests, the potential for migration of hazardous constituents to ground water or surface water.

R315-264-273. Design and Operating Requirements.

The Director shall specify in the facility permit how the owner or operator will design, construct, operate, and maintain the land treatment unit in compliance with Section R315-264-273.

(a) The owner or operator shall design, construct, operate, and maintain the unit to maximize the degradation, transformation, and immobilization of hazardous constituents in the treatment zone. The owner or operator shall design, construct, operate, and maintain the unit in accord with all design and operating conditions that were used in the treatment demonstration under Section R315-264-272. At a minimum, the Director shall specify the following in the facility permit:

(1) The rate and method of waste application to the treatment zone;

(2) Measures to control soil pH;

(3) Measures to enhance microbial or chemical reactions, e.g., fertilization, tilling; and

(4) Measures to control the moisture content of the treatment zone.

(b) The owner or operator shall design, construct, operate, and maintain the treatment zone to minimize run-off of hazardous constituents during the active life of the land treatment unit.

(c) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the treatment zone during peak discharge from at least a 25-year storm.

(d) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(e) Collection and holding facilities, e.g., tanks or basins, associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system.

(f) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator shall manage the unit to control wind dispersal.

(g) The owner or operator shall inspect the unit weekly and after storms to detect evidence of:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems; and

(2) Improper functioning of wind dispersal control measures.

R315-264-276. Food-Chain Crops.

The Director may allow the growth of food-chain crops in or on the treatment zone only if the owner or operator satisfies the conditions of Section R315-264-276. The Director shall specify in the facility permit the specific food-chain crops which may be grown.

(a)(1) The owner or operator shall demonstrate that there is no substantial risk to human health caused by the growth of such crops in or on the treatment zone by demonstrating, prior to the planting of such crops, that hazardous constituents other than cadmium:

(i) Will not be transferred to the food or feed portions of the crop by plant uptake or direct contact, and will not otherwise be ingested by food-chain animals, e.g., by grazing; or

(ii) Will not occur in greater concentrations in or on the food or feed portions of crops grown on the treatment zone than in or on identical portions of the same crops grown on untreated soils under similar conditions in the same region.

(2) The owner or operator shall make the demonstration required under Subsection R315-264-276(a) prior to the planting of crops at the facility for all constituents identified in appendix VIII of Rule R315-261 that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

(3) In making a demonstration under Subsection R315-264-276(a), the owner or operator may use field tests, greenhouse studies, available data, or, in the case of existing units, operating data, and shall:

(i) Base the demonstration on conditions similar to those present in the treatment zone, including soil characteristics, e.g., pH, cation exchange capacity, specific wastes, application rates, application methods, and crops to be grown; and

(ii) Describe the procedures used in conducting any tests, including the sample selection criteria, sample size, analytical methods, and statistical procedures.

(4) If the owner or operator intends to conduct field tests or greenhouse studies in order to make the demonstration required under Subsection R315-264-276(a), he shall obtain a permit for conducting such activities.

(b) The owner or operator shall comply with the following conditions if cadmium is contained in wastes applied to the treatment zone:

(1)(i) The pH of the waste and soil mixture shall be 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg, dry weight, or less;

(ii) The annual application of cadmium from waste shall not exceed 0.5 kilograms per hectare, kg/ha, on land used for tobacco, leafy vegetables, or root crops grown for human consumption or any other food-chain crop;

(iii) The cumulative application of cadmium from waste shall not exceed 5 kg/ha if the waste and soil mixture has a pH of less than 6.5; and

(iv) If the waste and soil mixture has a pH of 6.5 or greater or is maintained at a pH of 6.5 or greater during crop growth, the cumulative application of cadmium from waste shall not exceed: 5 kg/ha if soil cation exchange capacity (CEC) is less than 5 meq/100g; 10 kg/ha if soil CEC is 5-15 meq/100g; and 20 kg/ha if soil CEC is greater than 15 meq/100g; or

(2)(i) Animal feed shall be the only food-chain crop produced;

(ii) The pH of the waste and soil mixture shall be 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level shall be maintained whenever food-chain crops are grown;

(iii) There shall be an operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The operating plan shall describe the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses; and

(iv) Future property owners shall be notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food-chain crops shall not be grown except in compliance with Subsection R315-264-276(b)(2).

R315-264-278. Unsaturated Zone Monitoring.

An owner or operator subject to Sections R315-270 through 283 shall establish an unsaturated zone monitoring program to discharge the following responsibilities:

(a) The owner or operator shall monitor the soil and soil-pore liquid to determine whether hazardous constituents migrate out of the treatment zone.

(1) The Director shall specify the hazardous constituents to be monitored in the facility permit. The hazardous constituents to be monitored are those specified under Section R315-264-271(b).

(2) The Director may require monitoring for principal hazardous constituents (PHCs) in lieu of the constituents specified under Section R315-264-271(b). PHCs are hazardous constituents contained in the wastes to be applied at the unit that are the most difficult to treat, considering the combined effects of degradation, transformation, and immobilization. The Director shall establish PHCs if he finds, based on waste analyses, treatment demonstrations, or other data, that effective degradation, transformation, or immobilization of the PHCs will assure treatment at at least equivalent levels for the other hazardous constituents in the wastes.

(b) The owner or operator shall install an unsaturated zone monitoring system that includes soil monitoring using soil cores and soil-pore liquid monitoring using devices such as lysimeters. The unsaturated zone monitoring system shall consist of a sufficient number of sampling points at appropriate locations and depths to yield samples that:

(1) Represent the quality of background soil-pore liquid quality and the chemical make-up of soil that has not been affected by leakage from the treatment zone; and

(2) Indicate the quality of soil-pore liquid and the chemical make-up of the soil below the treatment zone.

(c) The owner or operator shall establish a background value for each hazardous constituent to be monitored under Subsection R315-264-278(a). The permit shall specify the background values for each constituent or specify the procedures to be used to calculate the background values.

(1) Background soil values may be based on a one-time sampling at a background plot having characteristics similar to those of the treatment zone.

(2) Background soil-pore liquid values shall be based on at least quarterly sampling for one year at a background plot having characteristics similar to those of the treatment zone.

(3) The owner or operator shall express all background values in a form necessary for the determination of statistically significant increases under Subsection R315-264-278(f).

(4) In taking samples used in the determination of all background values, the owner or operator shall use an unsaturated zone monitoring system that complies with Subsection R315-264-278(b)(1).

(d) The owner or operator shall conduct soil monitoring and soil-pore liquid monitoring immediately below the treatment zone. The Director shall specify the frequency and timing of soil and soil-pore liquid monitoring in the facility permit after considering the frequency, timing, and rate of waste application, and the soil permeability. The owner or operator shall express the results of soil and soil-pore liquid monitoring in a form necessary for the determination of statistically significant increases under Subsection R315-264-278(f).

(e) The owner or operator shall use consistent sampling and analysis procedures that are designed to ensure sampling results that provide a reliable indication of soil-pore liquid quality and the chemical make-up of the soil below the treatment zone. At a minimum, the owner or operator shall implement procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

(f) The owner or operator shall determine whether there is a statistically significant change over background values for any hazardous constituent to be monitored under Subsection R315-264-278(a) below the treatment zone each time he conducts soil monitoring and soil-pore liquid monitoring under Subsection R315-264-278(d).

(1) In determining whether a statistically significant increase has occurred, the owner or operator shall compare the value of each constituent, as determined under Subsection R315-264-278(d), to the background value for that constituent according to the statistical procedure specified in the facility permit under Subsection R315-264-278(e).

(2) The owner or operator shall determine whether there has been a statistically significant increase below the treatment zone within a reasonable time period after completion of sampling. The Director shall specify that time period in the facility permit after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of soil and soil-pore liquid samples.

(3) The owner or operator shall determine whether there is a statistically significant increase below the treatment zone using a statistical procedure that provides reasonable confidence that migration from the treatment zone will be identified. The Director shall specify a statistical procedure in the facility permit that he finds:

(i) Is appropriate for the distribution of the data used to establish background values; and

(ii) Provides a reasonable balance between the probability of falsely identifying migration from the treatment zone and the

probability of failing to identify real migration from the treatment zone.

(g) If the owner or operator determines, pursuant to Subsection R315-264-278(f), that there is a statistically significant increase of hazardous constituents below the treatment zone, he shall:

(1) Notify the Director of this finding in writing within seven days. The notification shall indicate what constituents have shown statistically significant increases.

(2) Within 90 days, submit to the Director an application for a permit modification to modify the operating practices at the facility in order to maximize the success of degradation, transformation, or immobilization processes in the treatment zone.

(h) If the owner or operator determines, pursuant to Subsection R315-264-278(f), that there is a statistically significant increase of hazardous constituents below the treatment zone, he may demonstrate that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under Subsection R315-264-278(h) in addition to, or in lieu of, submitting a permit modification application under Subsection R315-264-278(g)(2), he is not relieved of the requirement to submit a permit modification application within the time specified in Subsection R315-264-278(g)(2) unless the demonstration made under Subsection R315-264-278(h) successfully shows that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under Subsection R315-264-278(h), the owner or operator shall:

(1) Notify the Director in writing within seven days of determining a statistically significant increase below the treatment zone that he intends to make a determination under Subsection R315-264-278(h);

(2) Within 90 days, submit a report to the Director demonstrating that a source other than the regulated units caused the increase or that the increase resulted from error in sampling, analysis, or evaluation;

(3) Within 90 days, submit to the Director an application for a permit modification to make any appropriate changes to the unsaturated zone monitoring program at the facility; and

(4) Continue to monitor in accordance with the unsaturated zone monitoring program established under Section R315-264-278.

R315-264-279. Recordkeeping.

The owner or operator shall include hazardous waste application dates and rates in the operating record required under Section R315-264-73.

R315-264-280. Closure and Post-Closure Care.

(a) During the closure period the owner or operator shall:

(1) continue operations, including pH control, necessary to maximize degradation, transformation, or immobilization of hazardous constituents within the treatment zone as required under Subsection R315-264-273(a), except to the extent the measures are inconsistent with Subsection R315-264-280(a)(8);

(2) continue operations in the treatment zone to minimize run-off of hazardous constituents as required under Subsection R315-264-273(b);

(3) maintain the run-on control system required under Subsection R315-264-273(c);

(4) maintain the run-off management system required under Subsection R315-264-273(d);

(5) control wind dispersal of hazardous waste if required under Subsection R315-264-273(f);

(6) continue to comply with any prohibitions or conditions concerning growth of food-chain crops under Section R315-264-276;

(7) continue unsaturated zone monitoring in compliance with Section R315-264-278, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone; and

(8) establish a vegetative cover on the portion of the facility being closed at a time that the cover will not substantially impede degradation, transformation, or immobilization of hazardous constituents in the treatment zone. The vegetative cover shall be capable of maintaining growth without extensive maintenance.

(b) To comply with Section R315-264-115, when closure is completed the owner or operator may submit to the director certification by an independent, qualified soil scientist, in lieu of a qualified Professional Engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

(c) During the post-closure care period the owner or operator shall:

(1) continue operations, including pH control, necessary to enhance degradation and transformation and sustain immobilization of hazardous constituents in the treatment zone to the extent that the measures are consistent with other post-closure care activities;

(2) maintain a vegetative cover over closed portions of the facility;

(3) maintain the run-on control system required under Subsection R315-264-273(c);

(4) maintain the run-off management system required under Subsection R315-264-273(d);

(5) control wind dispersal of hazardous waste if required under Subsection R315-264-273(f);

(6) continue to comply with any prohibitions or conditions concerning growth of food-chain crops under Section R315-264-276; and

(7) continue unsaturated zone monitoring in compliance with Section R315-264-278, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone.

(d) The owner or operator is not subject to regulation under Subsections R315-264-280(a)(8) and R315-264-280(c) if the director finds that the level of hazardous constituents in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant if using the test specified in Subsection R315-264-280(d)(3). The owner or

operator may submit such a demonstration to the director at any time during the closure or post-closure care periods. For the purposes of Subsection R315-264-280(d):

(1) The owner or operator shall establish background soil values and determine whether there is a statistically significant increase over those values for all hazardous constituents specified in the facility permit under Subsection R315-264-271(b).

(i) Background soil values may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone.

(ii) The owner or operator shall express background values and values for hazardous constituents in the treatment zone in a form necessary for the determination of statistically significant increases under Subsection R315-264-280(d)(3).

(2) In taking samples used in the determination of background and treatment zone values, the owner or operator shall take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively.

(3) In determining whether a statistically significant increase has occurred, the owner or operator shall compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator shall use a statistical procedure that:

(i) is appropriate for the distribution of the data used to establish background values; and

(ii) provides a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify real presence in the treatment zone.

(e) The owner or operator is not subject to regulation under Sections R315-264-90 through R315-264-101 if the director finds that the owner or operator satisfies Subsection R315-264-280(d) and if unsaturated zone monitoring under Section R315-264-278 indicates that hazardous constituents have not migrated beyond the treatment zone during the active life of the land treatment unit.

R315-264-281. Special Requirements for Ignitable or Reactive Waste.

The owner or operator shall not apply ignitable or reactive waste to the treatment zone unless the waste and the treatment zone meet all applicable requirements of Rule R315-268, and:

(a) The waste is immediately incorporated into the soil so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23; and

(2) Subsection R315-264-17(b) is complied with; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

R315-264-282. Special Requirements for Incompatible Wastes.

The owner or operator shall not place incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-264 for examples, in or on the same treatment zone, unless Subsection R315-264-17(b) is complied with.

R315-264-283. Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027.

(a) Hazardous Wastes F020, F021, F022, F023, F026, and F027 shall not be placed in a land treatment unit unless the owner or operator operates the facility in accordance with a management plan for these wastes that is approved by the Director pursuant to the standards set out in Subsection R315-264-283(a), and in accord with all other applicable requirements of Rule R315-264. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(b) The Director may determine that additional design, operating, and monitoring requirements are necessary for land treatment facilities managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

R315-264-300. Landfills -- Applicability.

The regulations in Sections R315-264-300 through 317 apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as Section R315-264-1 provides otherwise.

R315-264-301. Design and Operating Requirements.

(a) Any landfill that is not covered by Subsection R315-264-301(c) or 40 CFR 265.301(a), which is adopted by reference, shall have a liner system for all portions of the landfill, except for portions of such landfill that existed on or prior to October 10, 1984. The liner system shall have:

(1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or ground water or surface water at anytime during the active life, including the closure period, of the landfill. The liner shall be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner shall be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces, physical contact with the waste or leachate to which they are

exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(iii) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

(2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The Director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall be:

(i) Constructed of materials that are:

(A) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and

(ii) Designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator shall be exempted from the requirements of Subsection R315-264-301(a) if the Director finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents, see Section R315-264-93, into the ground water or surface water at any future time. In deciding whether to grant an exemption, the Director shall consider:

(1) The nature and quantity of the wastes;

(2) The proposed alternate design and operation;

(3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and ground water or surface water; and

(4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that is to commence reuse after July 29, 1992 shall install two or more liners and a leachate collection and removal system above and between such liners. "Construction commences" is as defined in Section R315-260-10 under "existing facility".

(1)(i) The liner system shall include:

(A) A top liner designed and constructed of materials, e.g., a geomembrane, to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

(B) A composite bottom liner, consisting of at least two components. The upper component shall be designed and constructed of materials, e.g., a geomembrane, to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component shall be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component shall be constructed of at least 91 cm, 3 feet, of compacted soil material with a hydraulic conductivity of no more than 1 x 10✐7 cm/sec.

(ii) The liners shall comply with Subsections R315-264-301(a)(1)(i), (ii), and (iii).

(2) The leachate collection and removal system immediately above the top liner shall be designed, constructed, operated, and maintained to collect and remove leachate from the landfill during the active life and post-closure care period. The Director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall comply with Subsections R315-264-301(c)(3)(iii) and (iv).

(3) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system shall be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in Subsection R315-264-301(c) are satisfied by installation of a system that is, at a minimum:

(i) Constructed with a bottom slope of one percent or more;

(ii) Constructed of granular drainage materials with a hydraulic conductivity of 1✐10✐2 cm/sec or more and a thickness of 30.5 cm, 12 inches, or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3 x 10✐5 m2/sec or more;

(iii) Constructed of materials that are chemically resistant to the waste managed in the landfill and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the landfill;

(iv) Designed and operated to minimize clogging during the active life and post-closure care period; and

(v) Constructed with sumps and liquid removal methods, e.g., pumps, of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit shall have its own sump(s). The design of each sump and removal system shall provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

(4) The owner or operator shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.

(5) The owner or operator of a leak detection system that is not located completely above the seasonal high water table shall demonstrate that the operation of the leak detection system will not be adversely affected by the presence of ground water.

(d) The Director may approve alternative design or operating practices to those specified in Subsection R315-264-301(c) if the owner or operator demonstrates to the Director that such design and operating practices, together with location characteristics:

(1) Will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal systems specified in Subsection R315-264-301(c); and

(2) Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

(e) The double liner requirement set forth in Subsection R315-264-301(c) may be waived by the Director for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the Toxicity Characteristic in Section R315-261-24, with EPA Hazardous Waste Numbers D004 through D017; and

(2)(i)(A) The monofill has at least one liner for which there is no evidence that such liner is leaking;

(B) The monofill is located more than one-quarter mile from an "underground source of drinking water," as that term is defined in Section R315-270-2); and

(C) The monofill is in compliance with generally applicable ground-water monitoring requirements for facilities with permits under Section 19-6-108; or

(ii) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(f) The owner or operator of any replacement landfill unit is exempt from Subsection R315-264-301(c) if:

(1) The existing unit was constructed in compliance with the design standards of section 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and

(2) There is no reason to believe that the liner is not functioning as designed.

(g) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 24-hour, 25-year storm.

(h) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(i) Collection and holding facilities, e.g., tanks or basins, associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(j) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator shall cover or otherwise manage the landfill to control wind dispersal.

(k) The Director shall specify in the permit all design and operating practices that are necessary to ensure that the requirements of Section R315-264-301 are satisfied.

R315-264-302. Action Leakage Rate.

(a) The Director shall approve an action leakage rate for landfill units subject to Subsections R315-264-301(c) or (d). The action leakage rate is the maximum design flow rate that the leak detection system can remove without the fluid head on the bottom liner exceeding 30.5 cm, l foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, e.g., slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the leak detection system, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the leak detection system, and proposed response actions, e.g., the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(b) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly or monthly flow rate from the monitoring data obtained under Subsection R315-264-303(c) to an average daily flow rate, gallons per acre per day, for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period, and monthly during the post-closure care period when monthly monitoring is required under Subsection R315-264-303(c).

R315-264-303. Monitoring and Inspection.

(a) During construction or installation, liners, except in the case of existing portions of landfills exempt from Subsection R315-264-301(a) and cover systems, e.g., membranes, sheets, or coatings, shall be inspected for uniformity, damage, and imperfections, e.g., holes, cracks, thin spots, or foreign materials. Immediately after construction or installation:

(1) Synthetic liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

(2) Soil-based and admixed liners and covers shall be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

(b) While a landfill is in operation, it shall be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

(2) Proper functioning of wind dispersal control systems, where present; and

(3) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

(c)(1) An owner or operator required to have a leak detection system under Subsection R315-264-301(c) or (d) shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(2) After the final cover is installed, the amount of liquids removed from each leak detection system sump shall be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps shall be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps shall be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator shall return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(3) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

R315-264-304. Response Actions.

(a) The owner or operator of landfill units subject to Subsections R315-264-301(c) or (d) shall have an approved response action plan before receipt of waste. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in Subsection R315-264-304(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Director in writing of the exceedance within 7 days of the determination;

(2) Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in Subsections R315-264-304(b)(3), (4), and (5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in Subsections R315-264-304(b)(3), (4), and (5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

R315-264-309. Surveying and Recordkeeping.

The owner or operator of a landfill shall maintain the following items in the operating record required under Section R315-264-73:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

R315-264-310. Closure and Post-Closure Care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:

(1) Provide long-term minimization of migration of liquids through the closed landfill;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator shall comply with all post-closure requirements contained in Sections R315-264-117 through 120, including maintenance and monitoring throughout the post-closure care period, specified in the permit under Section R315-264-117. The owner or operator shall:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Continue to operate the leachate collection and removal system until leachate is no longer detected;

(3) Maintain and monitor the leak detection system in accordance with Subsections R315-264-301(c)(3)(iv) and (4) and R315-264-303(c), and comply with all other applicable leak detection system requirements of Rul3 R315-264;

(4) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Sections R315-264-90 through 101;

(5) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(6) Protect and maintain surveyed benchmarks used in complying with Section R315-264-309.

R315-264-312. Special Requirements for Ignitable or Reactive Waste.

(a) Except as provided in Subsection R315-264-312(b), and in Section R316-264-316, ignitable or reactive waste shall not be placed in a landfill, unless the waste and landfill meet all applicable requirements of Rule R315-268, and:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or 23; and

(2) Subsection R315-264-17(b) is complied with.

(b) Except for prohibited wastes which remain subject to treatment standards in Sections R315-268-40 through 49, ignitable wastes in containers may be landfilled without meeting the requirements of Subsection R315-264-312(a), provided that the wastes are

disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes shall be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; shall be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and shall not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

R315-264-313. Special Requirements for Incompatible Wastes.

Incompatible wastes, or incompatible wastes and materials, (see appendix V of Rule R315-264 for examples) shall not be placed in the same landfill cell, unless Subsection R315-264-17(b) is complied with.

R315-264-314. Special Requirements for Bulk and Containerized Liquids.

(a) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids, whether or not sorbents have been added, in any landfill is prohibited.

(b) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test shall be used: Method 9095B, Paint Filter Liquids Test, as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(c) Containers holding free liquids shall not be placed in a landfill unless:

(1) All free-standing liquid:

(i) Has been removed by decanting, or other methods;

(ii) Has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

(iii) Has been otherwise eliminated; or

(2) The container is very small, such as an ampule; or

(3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(4) The container is a lab pack as defined in Section R316-264-316 and is disposed of in accordance with Section R316-264-316.

(d) Sorbents used to treat free liquids to be disposed of in landfills shall be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in Subsection R315-264-314(d)(1); materials that pass one of the tests in Subsection R315-264-314(d)(2); or materials that are determined by the Director to be nonbiodegradable through the Rule R315-260 petition process.

(1) Nonbiodegradable sorbents.

(i) Inorganic minerals, other inorganic materials, and elemental carbon, e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas - illite, vermiculites, zeolites; calcium carbonate (organic free limestone; oxides/hydroxides, alumina, lime, silica - sand, diatomaceous earth; perlite - volcanic glass; expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon; or

(ii) High molecular weight synthetic polymers, e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers. This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(iii) Mixtures of these nonbiodegradable materials.

(2) Tests for nonbiodegradable sorbents.

(i) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)-Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

(ii) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)-Standard Practice for Determining Resistance of Plastics to Bacteria; or

(iii) The sorbent material is determined to be non-biodegradable under OECD test 301B: CO2 Evolution - Modified Sturm Test.

(e) The placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of such landfill demonstrates to the Director, or the Director determines that:

(1) The only reasonably available alternative to the placement in such landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

(2) Placement in such owner or operator's landfill will not present a risk of contamination of any "underground source of drinking water," as that term is defined in Section R315-270-2.

R315-264-315. Special Requirements for Containers.

Unless they are very small, such as an ampule, containers shall be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

R315-264-316. Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs).

Small containers of hazardous waste in overpacked drums, lab packs, may be placed in a landfill if the following requirements are met:

(a) Hazardous waste shall be packaged in non-leaking inside containers. The inside containers shall be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the contained waste. Inside containers shall be tightly and securely sealed. The inside containers shall be of the size and type specified in the Department of Transportation hazardous materials regulations, 49 CFR parts 173, 178, and 179, if those regulations specify a particular inside container for the waste.

(b) The inside containers shall be overpacked in an open head Department of Transportation-specification metal shipping container, 49 CFR parts 178 and 179, of no more than 416-liter, 110 gallon, capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with Subsection R315-264-314(d), to completely sorb all of the liquid contents of the inside containers. The metal outer container shall be full after it has been packed with inside containers and sorbent material.

(c) The sorbent material used shall not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with Subsection R315-264-17(b).

(d) Incompatible wastes, as defined in Section R315-260-10, shall not be placed in the same outside container.

(e) Reactive wastes, other than cyanide- or sulfide-bearing waste as defined in Subsection R315-261-23(a)(5), shall be treated or rendered non-reactive prior to packaging in accordance with Subsections R315-264-316(a) through (d). Cyanide- and sulfide-bearing reactive waste may be packed in accordance with Subsections R315-264-316(a) through (d) without first being treated or rendered non-reactive.

(f) Such disposal is in compliance with the requirements of Rule R315-268. Persons who incinerate lab packs according to the requirements in Subsection R315-268-42(c)(1) may use fiber drums in place of metal outer containers. Such fiber drums shall meet the Department of Transportation specifications in 49 CFR 173.12 and be overpacked according to the requirements in Subsection R315-264-316(b).

R315-264-317. Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027.

(a) Hazardous Wastes F020, F021, F022, F023, F026, and F027 shall not be placed in a landfill unless the owner or operator operates the landfill in accord with a management plan for these wastes that is approved by the Director pursuant to the standards set out in Section R315-264-317, and in accord with all other applicable requirements of Rule R315-264. The factors to be considered are:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring requirements.

(b) The Director may determine that additional design, operating, and monitoring requirements are necessary for landfills managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

R315-264-340. Incinerator -- Applicability.

(a) The regulations of Sections R315-264-340 through 351 apply to owners and operators of hazardous waste incinerators, as defined in Section R315-260-10, except as Section R315-264-1 provides otherwise.

(b) Integration of the MACT standards.

(1) Except as provided by Subsections R315-264-340(b)(2) through (b)(4), the standards of Rule R315-264 do not apply to a new hazardous waste incineration unit that becomes subject to RCRA permit requirements after October 12, 2005; or no longer apply when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of Section R307-214-2 by conducting a comprehensive performance test and submitting to the Director a Notification of Compliance under Section R307-14-2 documenting compliance with the requirements of Section R307-14-2. Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of Rule R315-264 shall continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

(2) The MACT standards do not replace the closure requirements of Section R315-264-351 or the applicable requirements of Sections R315-264-1 through 4, 10 though 19, 30 through 37, 50 through 56, 70 through 77, 90 through 101, 110 through 120, 140 through 151, 1050 through 1065 and 1080 through 1090.

(3) The particulate matter standard of Subsection R315-264-343(c) remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard under Section R307-214-2.

(4) The following requirements remain in effect for startup, shutdown, and malfunction events if you elect to comply with Subsection R35-270-235(a)(1)(i) to minimize emissions of toxic compounds from these events:

(i) Subsection R315-264-345(a) requiring that an incinerator operate in accordance with operating requirements specified in the permit; and

(ii) Subsection R315-264-345(c) requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.

(c) After consideration of the waste analysis included with part B of the permit application, the Director, in establishing the permit conditions, shall exempt the applicant from all requirements of Sections R315-264-340 through 351 except Section R315-264-341, Waste analysis, and Section R315-264-351, Closure,

(1) If the Director finds that the waste to be burned is:

(i) Listed as a hazardous waste in Sections R315-261-30 through 35 solely because it is ignitable, Hazard Code I, corrosive, Hazard Code C, or both; or

(ii) Listed as a hazardous waste in Sections R315-261-30 through 35 solely because it is reactive, Hazard Code R, for characteristics other than those listed in Subsections R315-261-23(a)(4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

(iii) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the test for characteristics of hazardous wastes under Sections R315-261-20 through 24; or

(iv) A hazardous waste solely because it possesses any of the reactivity characteristics described by Subsections R315-261-23(a)(1), (2), (3), (6), (7), and (8), and will not be burned when other hazardous wastes are present in the combustion zone; and

(2) If the waste analysis shows that the waste contains none of the hazardous constituents listed in Rule R315-261, appendix VIII, which would reasonably be expected to be in the waste.

(d) If the waste to be burned is one which is described by Subsections R315-264-340(b)(1)(i), (ii), (iii), or (iv) and contains insignificant concentrations of the hazardous constituents listed in Rule R315-261, appendix VIII, then the Director may, in establishing permit conditions, exempt the applicant from all requirements of Sections R315-264-340 through 351, except Section R315-264-341, Waste analysis, and Section R315-264-351, Closure, after consideration of the waste analysis included with part B of the permit application, unless the Director finds that the waste will pose a threat to human health and the environment when burned in an incinerator.

(e) The owner or operator of an incinerator may conduct trial burns subject only to the requirements of Section R315-270-62, Short term and incinerator permits.

R315-264-341. Waste Analysis.

(a) As a portion of the trial burn plan required by Section R315-270-62, or with part B of the permit application, the owner or operator shall have included an analysis of the waste feed sufficient to provide all information required by Subsection R315-270-62(b) or Section R315-270-19. Owners or operators of new hazardous waste incinerators shall provide the information required by Subsection R315-270-62(c) or Section R315-270-19 to the greatest extent possible.

(b) Throughout normal operation the owner or operator shall conduct sufficient waste analysis to verify that waste feed to the incinerator is within the physical and chemical composition limits specified in his permit, under Subsection R315-264-345(b).

R315-264-342. Principal Organic Hazardous Constituents.

(a) Principal organic hazardous constituents in the waste feed shall be treated to the extent required by the performance standard of Section R315-264-343.

(b)(1) One or more principal organic hazardous constituents shall be specified in the facility's permit, from among those constituents listed in appendix VIII of Rule R315-261 for each waste feed to be burned. This specification shall be based on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses and trial burns or alternative data submitted with part B of the facility's permit application. Organic constituents which represent the greatest degree of difficulty of incineration will be those most likely to be designated as principal organic hazardous constituents. Constituents are more likely to be designated as principal organic hazardous constituents if they are present in large quantities or concentrations in the waste.

(2) Trial principal organic hazardous constituents shall be designated for performance of trial burns in accordance with the procedure specified in Section R315-270-62 for obtaining trial burn permits.

R315-264-343. Performance Standards.

An incinerator burning hazardous waste shall be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under Section R315-264-345, it shall meet the following performance standards:

(a)(1) Except as provided in Subsection R315-264-343(a)(2), an incinerator burning hazardous waste shall achieve a destruction and removal efficiency of 99.99% for each principal organic hazardous constituent designated, under Section R315-264-342, in its permit for each waste feed. Destruction and removal efficiency is determined for each principal organic hazardous constituent from the following equation:

Destruction and removal efficiency = ((Win-Wout)/Win)x100%

where:

Win = mass feed rate of one principal organic hazardous constituent in the waste stream feeding the incinerator

and

Wout = mass emission rate of the same principal organic hazardous constituent present in exhaust emissions prior to release to the atmosphere.

(2) An incinerator burning hazardous wastes F020, F021, F022, F023, F026, or F027 shall achieve a destruction and removal efficiency of 99.9999% for each principal organic hazardous constituent designated, under Section R315-264-342, in its permit. This performance shall be demonstrated on principal organic hazardous constituents that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. Destruction and removal efficiency is determined for each principal organic hazardous constituent from the equation in Subsection R315-264-343(a)(1).

(b) An incinerator burning hazardous waste and producing stack emissions of more than 1.8 kilograms per hour, 4 pounds per hour, of hydrogen chloride shall control hydrogen chloride emissions such that the rate of emission is no greater than the larger of either 1.8 kilograms per hour or 1% of the hydrogen chloride in the stack gas prior to entering any pollution control equipment.

(c) An incinerator burning hazardous waste shall not emit particulate matter in excess of 180 milligrams per dry standard cubic meter, 0.08 grains per dry standard cubic foot, when corrected for the amount of oxygen in the stack gas according to the formula:

Pc = Pm x (14/(21-Y))

Where Pc is the corrected concentration of particulate matter, Pm is the measured concentration of particulate matter, and Y is the measured concentration of oxygen in the stack gas, using the Orsat method for oxygen analysis of dry flue gas, presented in 40 CFR 60, appendix A Method 3, which is adopted and incorporated by Section R307-221-3. This correction procedure is to be used by all hazardous

waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the Director shall select an appropriate correction procedure, to be specified in the facility permit.

(d) For purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-264-345, shall be regarded as compliance with Section R315-264-343. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of Section R315-264-343 may be "information" justifying modification, revocation, or reissuance of a permit under Section R315-270-41.

R315-264-344. Hazardous Waste Incinerator Permits.

(a) The owner or operator of a hazardous waste incinerator may burn only wastes specified in his permit and only under operating conditions specified for those wastes under Section R315-264-345, except:

(1) In approved trial burns under Section R315-270-62; or

(2) Under exemptions created by Section R315-264-340.

(b) Other hazardous wastes may be burned only after operating conditions have been specified in a new permit or a permit modification as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with part B of a permit application under Section R315-270-19.

(c) The permit for a new hazardous waste incinerator shall establish appropriate conditions for each of the applicable requirements of Sections R315-264-340 through 351, including but not limited to allowable waste feeds and operating conditions necessary to meet the requirements of Section R315-264-345, sufficient to comply with the following standards:

(1) For the period beginning with initial introduction of hazardous waste to the incinerator and ending with initiation of the trial burn, and only for the minimum time required to establish operating conditions required in Subsection R315-264-344(c)(2), not to exceed a duration of 720 hours operating time for treatment of hazardous waste, the operating requirements shall be those most likely to ensure compliance with the performance standards of Section R315-264-343, based on the Director's engineering judgment. The Director may extend the duration of this period once for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.

(2) For the duration of the trial burn, the operating requirements shall be sufficient to demonstrate compliance with the performance standards of Section R315-264-343 and shall be in accordance with the approved trial burn plan;

(3) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Director, the operating requirements shall be those most likely to ensure compliance with the performance standards of Section R315-264-343, based on the Director's engineering judgment.

(4) For the remaining duration of the permit, the operating requirements shall be those demonstrated, in a trial burn or by alternative data specified in Subsection R315-270-19(c), as sufficient to ensure compliance with the performance standards of Section R315-264-343.

R315-264-345. Operating Requirements.

(a) An incinerator shall be operated in accordance with operating requirements specified in the permit. These shall be specified on a case-by-case basis as those demonstrated, in a trial burn or in alternative data as specified in Subsection R315-264-344(b) and included with part B of a facility's permit application, to be sufficient to comply with the performance standards of Section R315-264-343.

(b) Each set of operating requirements shall specify the composition of the waste feed, including acceptable variations in the physical or chemical properties of the waste feed which will not affect compliance with the performance requirement of Section R315-264-343, to which the operating requirements apply. For each such waste feed, the permit shall specify acceptable operating limits including the following conditions:

(1) Carbon monoxide level in the stack exhaust gas;

(2) Waste feed rate;

(3) Combustion temperature;

(4) An appropriate indicator of combustion gas velocity;

(5) Allowable variations in incinerator system design or operating procedures; and

(6) Such other operating requirements as are necessary to ensure that the performance standards of Section R315-264-343 are met.

(c) During start-up and shut-down of an incinerator, hazardous waste, except wastes exempted in accordance with Section R315-264-340, shall not be fed into the incinerator unless the incinerator is operating within the conditions of operation, temperature, air feed rate, etc., specified in the permit.

(d) Fugitive emissions from the combustion zone shall be controlled by:

(1) Keeping the combustion zone totally sealed against fugitive emissions; or

(2) Maintaining a combustion zone pressure lower than atmospheric pressure; or

(3) An alternate means of control demonstrated, with part B of the permit application, to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

(e) An incinerator shall be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from limits established under Subsection R315-264-345(a).

(f) An incinerator shall cease operation when changes in waste feed, incinerator design, or operating conditions exceed limits designated in its permit.

R315-264-347. Monitoring and Inspections.

(a) The owner or operator shall conduct, as a minimum, the following monitoring while incinerating hazardous waste:

(1) Combustion temperature, waste feed rate, and the indicator of combustion gas velocity specified in the facility permit shall be monitored on a continuous basis.

(2) Carbon monoxide shall be monitored on a continuous basis at a point in the incinerator downstream of the combustion zone and prior to release to the atmosphere.

(3) Upon request by the Director, sampling and analysis of the waste and exhaust emissions shall be conducted to verify that the operating requirements established in the permit achieve the performance standards of Section R315-264-343.

(b) The incinerator and associated equipment, pumps, valves, conveyors, pipes, etc., shall be subjected to thorough visual inspection, at least daily, for leaks, spills, fugitive emissions, and signs of tampering.

(c) The emergency waste feed cutoff system and associated alarms shall be tested at least weekly to verify operability, unless the applicant demonstrates to the Director that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operational testing shall be conducted at least monthly.

(d) This monitoring and inspection data shall be recorded and the records shall be placed in the operating record required by Section R315-264-73 and maintained in the operating record for five years.

R315-264-351. Closure.

At closure the owner or operator shall remove all hazardous waste and hazardous waste residues, including, but not limited to, ash, scrubber waters, and scrubber sludges, from the incinerator site.

At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with Subsection R315-261-3(d), that the residue removed from the incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with applicable requirements of Rules R315-262 through 266.

R315-264-550. Applicability of Corrective Action Management Unit (CAMU) Regulations.

(a) Except as provided in Subsection R315-264-550(b), CAMUs are subject to the requirements of Section R315-264-552.

(b) CAMUs that were approved before April 22, 2002, or for which substantially complete applications (or equivalents) were submitted to the Agency on or before November 20, 2000, are subject to the requirements in Section R315-264-551 for grandfathered CAMUs; CAMU waste, activities, and design shall not be subject to the standards in Section R315-264-552, so long as the waste, activities, and design remain within the general scope of the CAMU as approved.

R315-264-551. Grandfathered Corrective Action Management Units (CAMUs).

(a) To implement remedies under Section R315-264-101 or RCRA Section 3008(h), or to implement remedies at a permitted facility that is not subject to Section R315-264-101, the Director may designate an area at the facility as a corrective action management unit under the requirements in Section R315-264-551. Corrective action management unit means an area within a facility that is used only for managing remediation wastes for implementing corrective action or cleanup at the facility. A CAMU shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

(1) Placement of remediation wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

(2) Consolidation or placement of remediation wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

(b)(1) The Director may designate a regulated unit, as defined in Subsection R315-264-90(a)(2), as a CAMU, or may incorporate a regulated unit into a CAMU, if:

(i) The regulated unit is closed or closing, meaning it has begun the closure process under Section R315-264-113 or 40 CFR 265.113, which is adopted by reference; and

(ii) Inclusion of the regulated unit will enhance implementation of effective, protective and reliable remedial actions for the facility.

(2) The requirements of Sections R315-264-90 through 101, 110 through 120, and 140 through 151 and the unit-specific requirements of Rules R315-264 or 265 that applied to that regulated unit shall continue to apply to that portion of the CAMU after incorporation into the CAMU.

(c) The Director shall designate a CAMU in accordance with the following:

(1) The CAMU shall facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

(2) Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

(3) The CAMU shall include uncontaminated areas of the facility, only if including such areas for the purpose of managing remediation waste is more protective than management of such wastes at contaminated areas of the facility;

(4) Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

(5) The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable;

(6) The CAMU shall enable the use, when appropriate, of treatment technologies, including innovative technologies, to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

(7) The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

(d) The owner/operator shall provide sufficient information to enable the Director to designate a CAMU in accordance with the criteria in Section R315-264-552.

(e) The Director shall specify, in the permit or order, requirements for CAMUs to include the following:

(1) The areal configuration of the CAMU.

(2) Requirements for remediation waste management to include the specification of applicable design, operation and closure requirements.

(3) Requirements for ground water monitoring that are sufficient to:

(i) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in ground water from sources located within the CAMU; and

(ii) Detect and subsequently characterize releases of hazardous constituents to ground water that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU.

(4) Closure and post-closure requirements.

(i) Closure of corrective action management units shall:

(A) Minimize the need for further maintenance; and

(B) Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

(ii) Requirements for closure of CAMUs shall include the following, as appropriate and as deemed necessary by the Director for a given CAMU:

(A) Requirements for excavation, removal, treatment or containment of wastes;

(B) For areas in which wastes will remain after closure of the CAMU, requirements for capping of such areas; and

(C) Requirements for removal and decontamination of equipment, devices, and structures used in remediation waste management activities within the CAMU.

(iii) In establishing specific closure requirements for CAMUs under Subsection R315-264-552(e), the Director shall consider the following factors:

(A) CAMU characteristics;

(B) Volume of wastes which remain in place after closure;

(C) Potential for releases from the CAMU;

(D) Physical and chemical characteristics of the waste;

(E) Hydrological and other relevant environmental conditions at the facility which may influence the migration of any potential or actual releases; and

(F) Potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

(iv) Post-closure requirements as necessary to protect human health and the environment, to include, for areas where wastes will remain in place, monitoring and maintenance activities, and the frequency with which such activities shall be performed to ensure the integrity of any cap, final cover, or other containment system.

(f) The Director shall document the rationale for designating CAMUs and shall make such documentation available to the public.

(g) Incorporation of a CAMU into an existing permit shall be approved by the Director according to the procedures for permit modifications under Section R315-270-41, or according to the permit modification procedures of Section R315-270-42.

(h) The designation of a CAMU does not change the Director's existing authority to address clean-up levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

R315-264-552. Corrective Action Management Units (CAMU).

(a) To implement remedies under Subsection R315-264-101 or RCRA Section 3008(h), or to implement remedies at a permitted facility that is not subject to Subsection R315-264-101, the Director may designate an area at the facility as a corrective action management unit under the requirements in Section R315-264-552. Corrective action management unit means an area within a facility that is used only for managing CAMU-eligible wastes for implementing corrective action or cleanup at the facility. A CAMU shall be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

(1) CAMU-eligible waste means:

(i) All solid and hazardous wastes, and all media, including ground water, surface water, soils, and sediments, and debris, that are managed for implementing cleanup. As-generated wastes, either hazardous or non-hazardous, from ongoing industrial operations at a site are not CAMU-eligible wastes.

(ii) Wastes that would otherwise meet the description in Subsection R315-264-552(a)(1)(i) are not "CAMU-Eligible Wastes" where:

(A) The wastes are hazardous wastes found during cleanup in intact or substantially intact containers, tanks, or other non-land-based units found above ground, unless the wastes are first placed in the tanks, containers or non-land-based units as part of cleanup, or the containers or tanks are excavated during the course of cleanup; or

(B) The Director exercises the discretion in Subsection R315-264-552(a)(2) to prohibit the wastes from management in a CAMU.

(iii) Notwithstanding Subsection R315-264-552(a)(1)(i), where appropriate, as-generated non-hazardous waste may be placed in a CAMU where such waste is being used to facilitate treatment or the performance of the CAMU.

(2) The Director may prohibit, where appropriate, the placement of waste in a CAMU where the Director has or receives information that such wastes have not been managed in compliance with applicable land disposal treatment standards of Rule R315-268, or

applicable unit design requirements of Rule R315-264, or applicable unit design requirements of Rule R315-265, or that non-compliance with other applicable requirements of Rules R315-260 through 266, 268, 270 and 273 likely contributed to the release of the waste.

(3) Prohibition against placing liquids in CAMUs.

(i) The placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste, whether or not sorbents have been added, in any CAMU is prohibited except where placement of such wastes facilitates the remedy selected for the waste.

(ii) The requirements in Subsection R315-264-314(c) for placement of containers holding free liquids in landfills apply to placement in a CAMU except where placement facilitates the remedy selected for the waste.

(iii) The placement of any liquid which is not a hazardous waste in a CAMU is prohibited unless such placement facilitates the remedy selected for the waste or a demonstration is made pursuant to Subsection R315-264-314(e).

(iv) The absence or presence of free liquids in either a containerized or a bulk waste shall be determined in accordance with Subsection R315-264-314(b). Sorbents used to treat free liquids in CAMUs shall meet the requirements of Subsection R315-264-314(d).

(4) Placement of CAMU-eligible wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

(5) Consolidation or placement of CAMU-eligible wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

(b)(1) The Director may designate a regulated unit, as defined in Subsection R315-264-90(a)(2), as a CAMU, or may incorporate a regulated unit into a CAMU, if:

(i) The regulated unit is closed or closing, meaning it has begun the closure process under Section R315-264-113 or 40 CFR 265.113, which is adopted by reference; and

(ii) Inclusion of the regulated unit will enhance implementation of effective, protective and reliable remedial actions for the facility.

(2) The requirements of Sections R315-264-90 through 101, 110 through 120, and 140 through 151 and the unit-specific requirements of Rules R315-264 or 265 that applied to the regulated unit shall continue to apply to that portion of the CAMU after incorporation into the CAMU.

(c) The Director shall designate a CAMU that will be used for storage and/or treatment only in accordance with Subsection R315-264-552(f). The Director shall designate all other CAMUs in accordance with the following:

(1) The CAMU shall facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

(2) Waste management activities associated with the CAMU shall not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

(3) The CAMU shall include uncontaminated areas of the facility, only if including such areas for the purpose of managing CAMU-eligible waste is more protective than management of such wastes at contaminated areas of the facility;

(4) Areas within the CAMU, where wastes remain in place after closure of the CAMU, shall be managed and contained so as to minimize future releases, to the extent practicable;

(5) The CAMU shall expedite the timing of remedial activity implementation, when appropriate and practicable;

(6) The CAMU shall enable the use, when appropriate, of treatment technologies, including innovative technologies, to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

(7) The CAMU shall, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

(d) The owner/operator shall provide sufficient information to enable the Director to designate a CAMU in accordance with the criteria in Section R315-264-552. This shall include, unless not reasonably available, information on:

(1) The origin of the waste and how it was subsequently managed, including a description of the timing and circumstances surrounding the disposal and/or release;

(2) Whether the waste was listed or identified as hazardous at the time of disposal and/or release; and

(3) Whether the disposal and/or release of the waste occurred before or after the land disposal requirements of Rule R315-268 were in effect for the waste listing or characteristic.

(e) The Director shall specify, in the permit or order, requirements for CAMUs to include the following:

(1) The areal configuration of the CAMU.

(2) Except as provided in Subsection R315-264-552(g), requirements for CAMU-eligible waste management to include the specification of applicable design, operation, treatment and closure requirements.

(3) Minimum design requirements. CAMUs, except as provided in Subsection R315-264-552(f), into which wastes are placed shall be designed in accordance with the following:

(i) Unless the Director approves alternate requirements under Subsection R315-264-552(e)(3)(ii), CAMUs that consist of new, replacement, or laterally expanded units shall include a composite liner and a leachate collection system that is designed and constructed to maintain less than a 30-cm depth of leachate over the liner. For purposes of Section R315-264-552, composite liner means a system consisting of two components; the upper component shall consist of a minimum 30-mil flexible membrane liner (FML), and the lower component shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1 x 10-7 cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60 mil thick. The FML component shall be installed in direct and uniform contact with the compacted soil component;

(ii) Alternate requirements. The Director may approve alternate requirements if:

(A) The Director finds that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the ground water or surface water at least as effectively as the liner and leachate collection systems in Subsection R315-264-552(e)(3)(i); or

(B) The CAMU is to be established in an area with existing significant levels of contamination, and the Director finds that an alternative design, including a design that does not include a liner, would prevent migration from the unit that would exceed long-term remedial goals.

(4) Minimum treatment requirements: Unless the wastes will be placed in a CAMU for storage and/or treatment only in accordance with Subsection R315-264-552(f), CAMU-eligible wastes that, absent Section R315-264-552, would be subject to the treatment requirements of Rule R315-268, and that the Director determines contain principal hazardous constituents shall be treated to the standards specified in Subsection R315-264-552(e)(4)(iii).

(i) Principal hazardous constituents are those constituents that the Director determines pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site.

(A) In general, the Director shall designate as principal hazardous constituents:

(I) Carcinogens that pose a potential direct risk from ingestion or inhalation at the site at or above 10^{-3}; and

(II) Non-carcinogens that pose a potential direct risk from ingestion or inhalation at the site an order of magnitude or greater over their reference dose.

(B) The Director shall also designate constituents as principal hazardous constituents, where appropriate, when risks to human health and the environment posed by the potential migration of constituents in wastes to ground water are substantially higher than cleanup levels or goals at the site; when making such a designation, the Director may consider such factors as constituent concentrations, and fate and transport characteristics under site conditions.

(C) The Director may also designate other constituents as principal hazardous constituents that the Director determines pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site.

(ii) In determining which constituents are "principal hazardous constituents," the Director shall consider all constituents which, absent Section R315-264-552, would be subject to the treatment requirements in Rule R315-268.

(iii) Waste that the Director determines contains principal hazardous constituents shall meet treatment standards determined in accordance with Subsections R315-264-552(e)(4)(iv) or (e)(4)(v).

(iv) Treatment standards for wastes placed in CAMUs.

(A) For non-metals, treatment shall achieve 90 percent reduction in total principal hazardous constituent concentrations, except as provided by Subsection R315-264-552(e)(4)(iv)(C).

(B) For metals, treatment shall achieve 90 percent reduction in principal hazardous constituent concentrations as measured in leachate from the treated waste or media, tested according to the TCLP, or 90 percent reduction in total constituent concentrations, when a metal removal treatment technology is used, except as provided by Subsection R315-264-552(e)(4)(iv)(C).

(C) When treatment of any principal hazardous constituent to a 90 percent reduction standard would result in a concentration less than 10 times the Universal Treatment Standard for that constituent, treatment to achieve constituent concentrations less than 10 times the Universal Treatment Standard is not required. Universal Treatment Standards are identified in Section R315-268-48 Table UTS.

(D) For waste exhibiting the hazardous characteristic of ignitability, corrosivity or reactivity, the waste shall also be treated to eliminate these characteristics.

(E) For debris, the debris shall be treated in accordance with Section R315-268-45, or by methods or to levels established under Subsections R315-264-552(e)(4)(iv)(A) through (D) or Subsection R315-264-552(e)(4)(v), whichever the Director determines is appropriate.

(F) Alternatives to TCLP. For metal bearing wastes for which metals removal treatment is not used, the Director may specify a leaching test other than the TCLP, SW846 Method 1311, Rule R315-260-11(c)(3)(v), to measure treatment effectiveness, provided the Director determines that an alternative leach testing protocol is appropriate for use, and that the alternative more accurately reflects conditions at the site that affect leaching.

(v) Adjusted standards. The Director may adjust the treatment level or method in Subsection R315-264-552(e)(4)(iv) to a higher or lower level, based on one or more of the following factors, as appropriate. The adjusted level or method shall be protective of human health and the environment:

(A) The technical impracticability of treatment to the levels or by the methods in Subsection R315-264-552(e)(4)(iv);

(B) The levels or methods in Subsection R315-264-552(e)(4)(iv) would result in concentrations of principal hazardous constituents (PHCs) that are significantly above or below cleanup standards applicable to the site, established either site-specifically, or promulgated under state or federal law;

(C) The views of the affected local community on the treatment levels or methods in Subsection R315-264-552(e)(4)(iv) as applied at the site, and, for treatment levels, the treatment methods necessary to achieve these levels;

(D) The short-term risks presented by the on-site treatment method necessary to achieve the levels or treatment methods in Subsection R315-264-552(e)(4)(iv);

(E) The long-term protection offered by the engineering design of the CAMU and related engineering controls:

(I) Where the treatment standards in Subsection R315-264-552(e)(4)(iv) are substantially met and the principal hazardous constituents in the waste or residuals are of very low mobility; or

(II) Where cost-effective treatment has been used and the CAMU meets the Subtitle C liner and leachate collection requirements for new land disposal units at Subsections R315-264-301(c) and (d); or

(III) Where, after review of appropriate treatment technologies, the Director determines that cost-effective treatment is not reasonably available, and the CAMU meets the Subtitle C liner and leachate collection requirements for new land disposal units at Subsection R315-264-301(c) and (d); or

(IV) Where cost-effective treatment has been used and the principal hazardous constituents in the treated wastes are of very low mobility; or

(V) Where, after review of appropriate treatment technologies, the Director determines that cost-effective treatment is not reasonably available, the principal hazardous constituents in the wastes are of very low mobility, and either the CAMU meets or exceeds the liner standards for new, replacement, or laterally expanded CAMUs in Subsections R315-264-552(e)(3)(i) and (ii), or the CAMU provides substantially equivalent or greater protection.

(vi) The treatment required by the treatment standards shall be completed prior to, or within a reasonable time after, placement in the CAMU.

(vii) For the purpose of determining whether wastes placed in CAMUs have met site-specific treatment standards, the Director may, as appropriate, specify a subset of the principal hazardous constituents in the waste as analytical surrogates for determining whether treatment standards have been met for other principal hazardous constituents. This specification shall be based on the degree of difficulty of treatment and analysis of constituents with similar treatment properties.

(5) Except as provided in Subsection R315-264-552(f), requirements for ground water monitoring and corrective action that are sufficient to:

(i) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in ground water from sources located within the CAMU; and

(ii) Detect and subsequently characterize releases of hazardous constituents to ground water that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU; and

(iii) Require notification to the Director and corrective action as necessary to protect human health and the environment for releases to ground water from the CAMU.

(6) Except as provided in Subsection R315-264-552(f), closure and post-closure requirements:

(i) Closure of corrective action management units shall:

(A) Minimize the need for further maintenance; and

(B) Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

(ii) Requirements for closure of CAMUs shall include the following, as appropriate and as deemed necessary by the Director for a given CAMU:

(A) Requirements for excavation, removal, treatment or containment of wastes; and

(B) Requirements for removal and decontamination of equipment, devices, and structures used in CAMU-eligible waste management activities within the CAMU.

(iii) In establishing specific closure requirements for CAMUs under Subsection R315-264-552(e), the Director shall consider the following factors:

(A) CAMU characteristics;

(B) Volume of wastes which remain in place after closure;

(C) Potential for releases from the CAMU;

(D) Physical and chemical characteristics of the waste;

(E) Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential or actual releases; and

(F) Potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

(iv) Cap requirements:

(A) At final closure of the CAMU, for areas in which wastes will remain after closure of the CAMU, with constituent concentrations at or above remedial levels or goals applicable to the site, the owner or operator shall cover the CAMU with a final cover designed and constructed to meet the following performance criteria, except as provided in Subsection R315-264-552(e)(6)(iv)(B):

(1) Provide long-term minimization of migration of liquids through the closed unit;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(B) The Director may determine that modifications to Subsection R315-264-552(e)(6)(iv)(A) are needed to facilitate treatment or the performance of the CAMU, e.g., to promote biodegradation.

(v) Post-closure requirements as necessary to protect human health and the environment, to include, for areas where wastes will remain in place, monitoring and maintenance activities, and the frequency with which such activities shall be performed to ensure the integrity of any cap, final cover, or other containment system.

(f) CAMUs used for storage and/or treatment only are CAMUs in which wastes will not remain after closure. Such CAMUs shall be designated in accordance with all of the requirements of Section R315-264-552, except as follows.

(1) CAMUs that are used for storage and/or treatment only and that operate in accordance with the time limits established in the staging pile regulations at Subsections R315-264-554(d)(1)(iii), (h), and (i) are subject to the requirements for staging piles at Subsections R315-264-554(d)(1)(i) and (ii), (d)(2), (e) and (f), (j), and (k) in lieu of the performance standards and requirements for CAMUs in Subsections R315-264-552(c) and (e)(3) through (6).

(2) CAMUs that are used for storage and/or treatment only and that do not operate in accordance with the time limits established in the staging pile regulations at Subsections R315-264-554(d)(1)(iii), (h), and (i):

(i) Shall operate in accordance with a time limit, established by the Director, that is no longer than necessary to achieve a timely remedy selected for the waste, and

(ii) Are subject to the requirements for staging piles at Subsection R315-264-554(d)(1)(i) and (ii), (d)(2), (e) and (f), (j), and (k) in lieu of the performance standards and requirements for CAMUs in Subsection R315-264-552(c) and (e)(4) and (6).

(g) CAMUs into which wastes are placed where all wastes have constituent levels at or below remedial levels or goals applicable to the site do not have to comply with the requirements for liners at Subsection R315-264-552(e)(3)(i), caps at Subsection R315-264-552(e)(6)(iv), ground water monitoring requirements at Subsection R315-264-552(e)(5) or, for treatment and/or storage-only CAMUs, the design standards at Subsection R315-264-552(f).

(h) The Director shall provide public notice and a reasonable opportunity for public comment before designating a CAMU. Such notice shall include the rationale for any proposed adjustments under Subsection R315-264-552(e)(4)(v) to the treatment standards in Subsection R315-264-552(e)(4)(iv).

(i) Notwithstanding any other provision of Section R315-264-552, the Director may impose additional requirements as necessary to protect human health and the environment.

(j) Incorporation of a CAMU into an existing permit shall be approved by the Director according to the procedures for permit modifications under Section R315-270-41, or according to the permit modification procedures of Section R315-270-42.

(k) The designation of a CAMU does not change the Director's existing authority to address clean-up levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

R315-264-553. Temporary Units (TU).

(a) For temporary tanks and container storage areas used to treat or store hazardous remediation wastes during remedial activities required under Section R315-264-101 or RCRA 3008(h), or at a permitted facility that is not subject to Section R315-264-101, the Director may designate a unit at the facility, as a temporary unit. A temporary unit shall be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the temporary unit originated. For temporary units, the Director may replace the design, operating, or closure standard applicable to these units under Rule R315-264 or 265 with alternative requirements which protect human health and the environment.

(b) Any temporary unit to which alternative requirements are applied in accordance with Subsection R315-264-553(a) shall be:

(1) Located within the facility boundary; and

(2) Used only for treatment or storage of remediation wastes.

(c) In establishing standards to be applied to a temporary unit, the Director shall consider the following factors:

(1) Length of time such unit will be in operation;

(2) Type of unit;

(3) Volumes of wastes to be managed;

(4) Physical and chemical characteristics of the wastes to be managed in the unit;

(5) Potential for releases from the unit;

(6) Hydrogeological and other relevant environmental conditions at the facility which may influence the migration of any potential releases; and

(7) Potential for exposure of humans and environmental receptors if releases were to occur from the unit.

(d) The Director shall specify in the permit or order the length of time a temporary unit will be allowed to operate, to be no longer than a period of one year. The Director shall also specify the design, operating, and closure requirements for the unit.

(e) The Director may extend the operational period of a temporary unit once for no longer than a period of one year beyond that originally specified in the permit or order, if the Director determines that:

(1) Continued operation of the unit will not pose a threat to human health and the environment; and

(2) Continued operation of the unit is necessary to ensure timely and efficient implementation of remedial actions at the facility.

(f) Incorporation of a temporary unit or a time extension for a temporary unit into an existing permit shall be:

(1) Approved in accordance with the procedures for permit modifications under Section R315-270-41; or

(2) Requested by the owner/operator as a Class II modification according to the procedures under Section R315-270-42.

(g) The Director shall document the rationale for designating a temporary unit and for granting time extensions for temporary units and shall make such documentation available to the public.

R315-264-554. Staging Piles.

Section R315-264-554 is written in a special format to make it easier to understand the regulatory requirements. Like other regulations, this establishes enforceable legal requirements. For Section R315-264-554 "I" and "you" refer to the owner/operator.

(a) What is a staging pile? A staging pile is an accumulation of solid, non-flowing remediation waste, as defined in Section R315-260-10, that is not a containment building and is used only during remedial operations for temporary storage at a facility. A staging pile shall be located within the contiguous property under the control of the owner/operator where the wastes to be managed in the staging pile originated. Staging piles shall be designated by the Director according to the requirements in Section R315-264-554.

(1) For the purposes of Section R315-264-554, storage includes mixing, sizing, blending, or other similar physical operations as long as they are intended to prepare the wastes for subsequent management or treatment.

(b) When may I use a staging pile? You may use a staging pile to store hazardous remediation waste, or remediation waste otherwise subject to land disposal restrictions, only if you follow the standards and design criteria the Director has designated for that staging pile. The Director shall designate the staging pile in a permit or, at an interim status facility, in a closure plan or order, consistent with Subsections R315-270-72(a)(5) and (b)(5). The Director shall establish conditions in the permit, closure plan, or order that comply with Subsection R315-264-554(d) through (k).

(c) What information shall I provide to get a staging pile designated? When seeking a staging pile designation, you shall provide:

(1) Sufficient and accurate information to enable the Director to impose standards and design criteria for your staging pile according to Section R315-264-554(d) through (k);

(2) Certification by a qualified Professional Engineer for technical data, such as design drawings and specifications, and engineering studies, unless the Director determines, based on information that you provide, that this certification is not necessary to ensure that a staging pile will protect human health and the environment; and

(3) Any additional information the Director determines is necessary to protect human health and the environment.

(d) What performance criteria shall a staging pile satisfy? The Director shall establish the standards and design criteria for the staging pile in the permit, closure plan, or order.

(1) The standards and design criteria shall comply with the following:

(i) The staging pile shall facilitate a reliable, effective and protective remedy;

(ii) The staging pile shall be designed so as to prevent or minimize releases of hazardous wastes and hazardous constituents into the environment, and minimize or adequately control cross-media transfer, as necessary to protect human health and the environment, for example, through the use of liners, covers, run-off/run-on controls, as appropriate; and

(iii) The staging pile shall not operate for more than two years, except when the Director grants an operating term extension under Subsection R315-264-554(i), entitled "May I receive an operating extension for a staging pile?". You shall measure the two-year limit, or other operating term specified by the Director in the permit, closure plan, or order, from the first time you place remediation waste into a staging pile. You shall maintain a record of the date when you first placed remediation waste into the staging pile for the life of the permit, closure plan, or order, or for three years, whichever is longer.

(2) In setting the standards and design criteria, the Director shall consider the following factors:

(i) Length of time the pile will be in operation;

(ii) Volumes of wastes you intend to store in the pile;

(iii) Physical and chemical characteristics of the wastes to be stored in the unit;

(iv) Potential for releases from the unit;

(v) Hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential releases; and

(vi) Potential for human and environmental exposure to potential releases from the unit;

(e) May a staging pile receive ignitable or reactive remediation waste? You shall not place ignitable or reactive remediation waste in a staging pile unless:

(1) You have treated, rendered or mixed the remediation waste before you placed it in the staging pile so that:

(i) The remediation waste no longer meets the definition of ignitable or reactive under Sections R315-261-21 or 23; and

(ii) You have complied with Subsection R315-264-17(b); or

(2) You manage the remediation waste to protect it from exposure to any material or condition that may cause it to ignite or react.

(f) How do I handle incompatible remediation wastes in a staging pile? The term "incompatible waste" is defined in Section R315-260-10. You shall comply with the following requirements for incompatible wastes in staging piles:

(1) You shall not place incompatible remediation wastes in the same staging pile unless you have complied with Subsection R315-264-17(b);

(2) If remediation waste in a staging pile is incompatible with any waste or material stored nearby in containers, other piles, open tanks or land disposal units, for example, surface impoundments, you shall separate the incompatible materials, or protect them from one another by using a dike, berm, wall or other device; and

(3) You shall not pile remediation waste on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to comply with Subsection R315-264-17(b).

(g) Are staging piles subject to Land Disposal Restrictions and Minimum Technological Requirements? No. Placing hazardous remediation wastes into a staging pile does not constitute land disposal of hazardous wastes or create a unit that is subject to the minimum technological requirements of RCRA 3004(o).

(h) How long may I operate a staging pile? The Director may allow a staging pile to operate for up to two years after hazardous remediation waste is first placed into the pile. You shall use a staging pile no longer than the length of time designated by the Director in the permit, closure plan, or order, the "operating term", except as provided in Subsection R315-264-554(i).

(i) May I receive an operating extension for a staging pile?

(1) The Director may grant one operating term extension of up to 180 days beyond the operating term limit contained in the permit, closure plan, or order, see Subsection R315-264-554(l) for modification procedures. To justify to the Director the need for an extension, you shall provide sufficient and accurate information to enable the Director to determine that continued operation of the staging pile:

(i) Will not pose a threat to human health and the environment; and

(ii) Is necessary to ensure timely and efficient implementation of remedial actions at the facility.

(2) The Director may, as a condition of the extension, specify further standards and design criteria in the permit, closure plan, or order, as necessary, to ensure protection of human health and the environment.

(j) What is the closure requirement for a staging pile located in a previously contaminated area?

(1) Within 180 days after the operating term of the staging pile expires, you shall close a staging pile located in a previously contaminated area of the site by removing or decontaminating all:

(i) Remediation waste;

(ii) Contaminated containment system components; and

(iii) Structures and equipment contaminated with waste and leachate.

(2) You shall also decontaminate contaminated subsoils in a manner and according to a schedule that the Director determines will protect human health and the environment.

(3) The Director shall include the above requirements in the permit, closure plan, or order in which the staging pile is designated.

(k) What is the closure requirement for a staging pile located in an uncontaminated area?

(1) Within 180 days after the operating term of the staging pile expires, you shall close a staging pile located in an uncontaminated area of the site according to Subsections R315-264-258(a) and 264-111; or according to 40 CFR 265.258(a) and 265.111, which are adopted by reference.

(2) The Director shall include the above requirement in the permit, closure plan, or order in which the staging pile is designated.

(l) How may my existing permit, for example, Remedial Action Plan, closure plan, or order be modified to allow me to use a staging pile?

(1) To modify a permit, other than a Remedial Action Plan, to incorporate a staging pile or staging pile operating term extension, either:

(i) The Director shall approve the modification under the procedures for permit modifications in Section R315-270-41; or

(ii) You shall request a Class 2 modification under Section R315-270-42.

(2) To modify a Remedial Action Plan to incorporate a staging pile or staging pile operating term extension, you shall comply with the Remedial Action Plan modification requirements under Sections R315-270-170 and 175.

(3) To modify a closure plan to incorporate a staging pile or staging pile operating term extension, you shall follow the applicable requirements under Section R315-264-112(c) or 40 CFR 265.112(c), which is adopted by reference.

(4) To modify an order to incorporate a staging pile or staging pile operating term extension, you shall follow the terms of the order and the applicable provisions of Subsection R315-270-72(a)(5) or (b)(5).

(m) Is information about the staging pile available to the public? The Director shall document the rationale for designating a staging pile or staging pile operating term extension and make this documentation available to the public.

R315-264-555. Disposal of CAMU-Eligible Wastes in Permitted Hazardous Waste Landfills.

(a) The Director may approve placement of CAMU-eligible wastes in hazardous waste landfills not located at the site from which the waste originated, without the wastes meeting the requirements of Rule R315-268, if the conditions in Subsections R315-264-555(a)(1) through (3) are met:

(1) The waste meets the definition of CAMU-eligible waste in Subsection R315-264-552(a)(1) and (2).

(2) The Director identifies principal hazardous constitutes in such waste, in accordance with Subsection R315-264-552(e)(4)(i) and (ii), and requires that such principal hazardous constituents are treated to any of the following standards specified for CAMU-eligible wastes:

(i) The treatment standards under Subsection R315-264-552(e)(4)(iv); or

(ii) Treatment standards adjusted in accordance with Subsection R315-264-552(e)(4)(v)(A), (C), (D) or (E)(I); or

(iii) Treatment standards adjusted in accordance with Subsection R315-264-552(e)(4)(v)(E)(II), where treatment has been used and that treatment significantly reduces the toxicity or mobility of the principal hazardous constituents in the waste, minimizing the short-term and long-term threat posed by the waste, including the threat at the remediation site.

(3) The landfill receiving the CAMU-eligible waste shall have a permit issued under Section 19-6-108, meet the requirements for new landfills in Sections R315-264-300 through 317, and be authorized to accept CAMU-eligible wastes; for the purposes of this requirement, "permit" does not include interim status.

(b) The person seeking approval shall provide sufficient information to enable the Director to approve placement of CAMU-eligible waste in accordance with Subsection R315-264-555(a). Information required by Subsections R315-264-552(d)(1) through (3) for CAMU applications shall be provided, unless not reasonably available.

(c) The Director shall provide public notice and a reasonable opportunity for public comment before approving CAMU eligible waste for placement in an off-site permitted hazardous waste landfill, consistent with the requirements for CAMU approval at Subsection R315-264-552(h). The approval shall be specific to a single remediation.

(d) Applicable hazardous waste management requirements in Rule R315-264, including recordkeeping requirements to demonstrate compliance with treatment standards approved under Section R315-264-555, for CAMU-eligible waste shall be incorporated into the receiving facility permit through permit issuance or a permit modification, providing notice and an opportunity for comment and a hearing. Notwithstanding Subsection R315-270-4(a), a landfill may not receive hazardous CAMU-eligible waste under Section R315-264-555 unless its permit specifically authorizes receipt of such waste.

(e) For each remediation, CAMU-eligible waste may not be placed in an off-site landfill authorized to receive CAMU-eligible waste in accordance with Subsection R315-264-555(d) until the following additional conditions have been met:

(1) The landfill owner/operator notifies the Director and persons on the facility mailing list, maintained in accordance with Subsection R315-124-10(c)(1)(ix), of his or her intent to receive CAMU-eligible waste in accordance with Section R315-264-555; the notice shall identify the source of the remediation waste, the principal hazardous constituents in the waste, and treatment requirements.

(2) Persons on the facility mailing list may provide comments, including objections to the receipt of the CAMU-eligible waste, to the Director within 15 days of notification.

(3) The Director may object to the placement of the CAMU-eligible waste in the landfill within 30 days of notification; the Director may extend the review period an additional 30 days because of public concerns or insufficient information.

(4) CAMU-eligible wastes may not be placed in the landfill until the Director has notified the facility owner/operator that he or she does not object to its placement.

(5) If the Director objects to the placement or does not notify the facility owner/operator that he or she has chosen not to object,

the facility may not receive the waste, notwithstanding Subsection R315-270-4(a), until the objection has been resolved, or the owner/operator obtains a permit modification in accordance with the procedures of Section R315-270-42 specifically authorizing receipt of the waste.

(6) As part of the permit issuance or permit modification process of Subsection R315-264-555(d), the Director may modify, reduce, or eliminate the notification requirements of Subsection R315-264-555(e) as they apply to specific categories of CAMU-eligible waste, based on minimal risk.

(f) Generators of CAMU-eligible wastes sent off-site to a hazardous waste landfill under Section R315-264-555 shall comply with the requirements of Subsection R315-268-7(a)(4); off-site facilities treating CAMU-eligible wastes to comply with Section R315-264-555 shall comply with the requirements of Subsection R315-268-7(b)(4), except that the certification shall be with respect to the treatment requirements of Subsection R315-264-555(a)(2).

(g) For the purposes of Section R315-264-555 only, the "design of the CAMU" in Subsection R315-264-552(e)(4)(v)(E) means design of the permitted hazardous waste landfill.

R315-264-570. Drip Pads -- Applicability.

(a) The requirements of Sections R315-264-570 through 575 apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation, and/or surface water run-off to an associated collection system. Existing drip pads are those constructed before December 6, 1990 and those for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 6, 1990 for all HSWA drip pads or July 30, 1993 for all non-HSWA drip pads. All other drip pads are new drip pads. The requirement at Subsection R315-264-573(b)(3) to install a leak collection system applies only to those drip pads that are constructed after December 24, 1992 except for those constructed after December 24, 1992 for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 24, 1992 for all HSWA drip pads or July 30, 1993 for all non-HSWA drip pads.

(b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under Subsection R315-264-573(e) or Subsection R315-264-573(f), as appropriate.

(c) The requirements of Sections R315-264-570 through 575 are not applicable to the management of infrequent and incidental drippage in storage yards provided that:

(1) The owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of such infrequent and incidental drippage. At a minimum, the contingency plan shall describe how the owner or operator will do the following:

(i) Clean up the drippage;

(ii) Document the cleanup of the drippage;

(iii) Retain documents regarding cleanup for three years; and

(iv) Manage the contaminated media in a manner consistent with Utah regulations.

R315-264-571. Assessment of Existing Drip Pad Integrity.

(a) For each existing drip pad as defined in Subsection R315-264-570, the owner or operator shall evaluate the drip pad and determine whether it meets all of the requirements of Sections R315-264-570 through 575, except the requirements for liners and leak detection systems of Subsection R315-264-573(b). The owner or operator shall obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified Professional Engineer that attests to the results of the evaluation. The assessment shall be reviewed, updated and re-certified annually until all upgrades, repairs, or modifications necessary to achieve compliance with all the standards of Section R315-264-573 are complete. The evaluation shall document the extent to which the drip pad meets each of the design and operating standards of Section R315-264-573, except the standards for liners and leak detection systems, specified in Subsection R315-264-573(b).

(b) The owner or operator shall develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of Subsection R315-264-573(b) and submit the plan to the Director no later than 2 years before the date that all repairs, upgrades, and modifications are complete. This written plan shall describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of Section R315-264-573. The plan shall be reviewed and certified by a qualified Professional Engineer.

(c) Upon completion of all upgrades, repairs, and modifications, the owner or operator shall submit to the Director, the as-built drawings for the drip pad together with a certification by a qualified Professional Engineer attesting that the drip pad conforms to the drawings.

(d) If the drip pad is found to be leaking or unfit for use, the owner or operator shall comply with the provisions of Subsection R315-264-573(m) or close the drip pad in accordance with Section R315-264-575.

R315-264-572. Design and Installation of New Drip Pads.

Owners and operators of new drip pads shall ensure that the pads are designed, installed, and operated in accordance with one of the following:

(a) all of the requirements of Section R315-264-573, except 573(a)(4) and Subsections R315-264-574 and 575, or

(b) all of the requirements of Sections R315-264-573, except 573(b), 574 and 575.

R315-264-573. Design and Operating Requirements.

(a) Drip pads shall:

(1) be constructed of non-earthen materials, excluding wood and non-structurally supported asphalt;

(2) be sloped to free-drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

(3) have a curb or berm around the perimeter;

(4)(i) have a hydraulic conductivity of less than or equal to 1×10^{-7} centimeters per second, for example, existing concrete drip pads shall be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to 1×10^{-7} centimeters per second so that the entire surface where drippage occurs or may run across is capable of containing the drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material shall be maintained free of cracks and gaps that could adversely affect its hydraulic conductivity, and the material shall be chemically compatible with the preservatives that contact the drip pad. The requirements of this provision apply only to existing drip pads and those drip pads for which the owner or operator elects to comply with Subsection R315-264-572(b) instead of Subsection R315-264-572(a).

(ii) The owner or operator shall obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified Professional Engineer that attests to the results of the evaluation. The assessment shall be reviewed, updated, and recertified annually. The evaluation shall document the extent to which the drip pad meets the design and operating standards of Section R315-264-573, except for Subsection R315-264-573(b); and

(5) be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of daily operations, for example, variable and moving loads such as vehicle traffic, movement of wood.

Note: The director will generally consider applicable standards established by professional organizations generally recognized by the industry such as the American Concrete Institute or the American Society of Testing and Materials in judging the structural integrity requirement of Subsection R315-264-573(a).

(b) If an owner or operator elects to comply with Subsection R315-264-572(a) instead of Subsection R315-264-572(b), the drip pad shall have:

(1) A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or groundwater or surface water at any time during the active life, including the closure period, of the drip pad. The liner shall be constructed of materials that will prevent waste from being absorbed into the liner and to prevent releases into the adjacent subsurface soil or groundwater or surface water during the active life of the facility. The liner shall be:

(i) constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces; physical contact with the waste or drip pad leakage to which they are exposed; climatic conditions; the stress of installation; and the stress of daily operation, including stresses from vehicular traffic on the drip pad;

(ii) placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

(iii) installed to cover any surrounding earth that could come in contact with the waste or leakage; and

(2) A leakage detection system immediately above the liner that is designed, constructed, maintained, and operated to detect leakage from the drip pad. The leakage detection system shall be:

(i) constructed of materials that are:

(A) chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

(B) of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying materials and by any equipment used at the drip pad;

(ii) designed and operated to function without clogging through the scheduled closure of the drip pad; and

(iii) designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

(3) A leakage collection system immediately above the liner that is designed, constructed, maintained, and operated to collect leakage from the drip pad so that it can be removed from below the drip pad. The date, time, and quantity of any leakage collected in this system and removed shall be documented in the operating log.

(c) Drip pads shall be maintained so that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad.

Note: See Subsection R315-264-573(m) for remedial action required if deterioration or leakage is detected.

(d) The drip pad and associated collection system shall be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation to prevent run-off.

(e) Unless protected by a structure, as described in Subsection R315-264-570(b), the owner or operator shall design, construct, operate and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a 24-hour, 25-year storm, unless the system has sufficient excess capacity to contain any run-off that might enter the system.

(f) Unless protected by a structure or cover as described in Subsection R315-264-570(b), the owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(g) The drip pad shall be evaluated to determine that it meets the requirements of Subsections R315-264-573(a) through R315-264-573(f) and the owner or operator shall obtain a statement from a qualified Professional Engineer certifying that the drip pad design meets the requirements of Section R315-264-573.

(h) Drippage and accumulated precipitation shall be removed from the associated collection system as necessary to prevent

overflow onto the drip pad.

(i) The drip pad surface shall be cleaned thoroughly in a manner and frequency so that accumulated residues of hazardous waste or other materials are removed, with residues being properly managed as hazardous waste, so as to allow weekly inspections of the entire drip pad surface without interference or hindrance from accumulated residues of hazardous waste or other materials on the drip pad. The owner or operator shall document the date and time of each cleaning and the cleaning procedure used in the facility's operating log. The owner or operator shall determine if the residues are hazardous as per Section R315-262-11 and, if so, shall manage them under Rules R315-261 through R315-268, R315-270, and section 3010 of RCRA.

(j) Drip pads shall be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(k) After being removed from the treatment vessel, treated wood from pressure and non-pressure processes shall be held on the drip pad until drippage has ceased. The owner or operator shall maintain records sufficient to document that any treated wood is held on the pad following treatment in accordance with this requirement.

(l) Collection and holding units associated with run-on and run-off control systems shall be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(m) Throughout the active life of the drip pad and as specified in the permit, if the owner or operator detects a condition that may have caused or has caused a release of hazardous waste, the condition shall be repaired within a reasonably prompt amount of time following discovery, in accordance with the following procedures:

(1) Upon detection of a condition that may have caused or has caused a release of hazardous waste, for example, upon detection of leakage in the leak detection system, the owner or operator shall:

(i) enter a record of the discovery in the facility operating log;

(ii) immediately remove the portion of the drip pad affected by the condition from service;

(iii) determine what steps shall be taken to repair the drip pad and clean up any leakage from below the drip pad, and establish a schedule for accomplishing the repairs; and

(iv) within 24 hours after discovery of the condition, notify the director of the condition and, within ten working days, provide written notice to the director with a description of the steps that will be taken to repair the drip pad and clean up any leakage, and the schedule for accomplishing this work.

(2) The director shall review the information submitted, make a determination regarding whether the pad shall be removed from service completely or partially until repairs and cleanup are complete and notify the owner or operator of the determination and the underlying rationale in writing.

(3) Upon completing the repairs and cleanup, the owner or operator shall notify the director in writing and provide a certification signed by an independent, qualified registered Professional Engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with Subsection R315-264-573(m)(1)(iv).

(n) Should a permit be necessary, the director shall specify in the permit each design and operating practice that is necessary to ensure that the requirements of Section R315-264-573 are satisfied.

(o) The owner or operator shall maintain, as part of the facility operating log, documentation of past operating and waste handling practices. This shall include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.

R315-264-574. Inspections.

(a) During construction or installation, liners and cover systems, e.g., membranes, sheets, or coatings, shall be inspected for uniformity, damage and imperfections, e.g., holes, cracks, thin spots, or foreign materials. Immediately after construction or installation, liners shall be inspected and certified as meeting the requirements in Section R315-264-573 by a qualified Professional Engineer. This certification shall be maintained at the facility as part of the facility operating record. After installation, liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a drip pad is in operation, it shall be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions or improper operation of run-on and run-off control systems;

(2) The presence of leakage in and proper functioning of leak detection system.

(3) Deterioration or cracking of the drip pad surface.

Note: See Section R315-264-573(m) for remedial action required if deterioration or leakage is detected.

R315-264-575. Closure.

(a) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, pad, liners, etc., contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-264-575(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall close the facility and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills, Section R315-264-310. For permitted units, the requirement to have a permit continues throughout the post-closure period. In addition, for the purpose of closure, post-closure, and financial responsibility, such a drip pad is then considered to be landfill, and the owner or operator shall meet all of the requirements for landfills specified in Sections R315-264-110 through 120 and 140 through 151.

(c)(1) The owner or operator of an existing drip pad, as defined in Section R315-264-570, that does not comply with the liner

requirements of Subsection R315-264-573(b)(1) shall:

(i) Include in the closure plan for the drip pad under Section R315-264-112 both a plan for complying with Subsection R315-264-575(a) and a contingent plan for complying with Subsection R315-264-575(b) in case not all contaminated subsoils can be practicably removed at closure; and

(ii) Prepare a contingent post-closure plan under Section R315-264-118 for complying with Subsection R315-264-575(b) in case not all contaminated subsoils can be practicably removed at closure.

(2) The cost estimates calculated under Sections R315-264-112 and 144 for closure and post-closure care of a drip pad subject to Subsection R315-264-575(c) shall include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under Subsection R315-264-575(a).

R315-264-600. Miscellaneous Units -- Applicability.

The requirements in Sections R315-264-600 through 603 apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units, except as Section R315-264-1 provides otherwise.

R315-264-601. Environmental Performance Standards.

A miscellaneous unit shall be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. Permit terms and provisions shall include those requirements of Sections R315-264-170 through 179, 190 through 200, 220 through 232, 250 through 259, 270 through 283, 300 through 317, 340 through 351, 1030 through 1036, 1050 through 1065, 1080 through 1090, Rule 270, Subsection R307-214-2(39), and Rule R317-7 that are appropriate for the miscellaneous unit being permitted. Protection of human health and the environment includes, but is not limited to:

(a) Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the ground water or subsurface environment, considering:

(1) The volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;

(2) The hydrologic and geologic characteristics of the unit and the surrounding area;

(3) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water;

(4) The quantity and direction of ground-water flow;

(5) The proximity to and withdrawal rates of current and potential ground-water users;

(6) The patterns of land use in the region;

(7) The potential for deposition or migration of waste constituents into subsurface physical structures, and into the root zone of food-chain crops and other vegetation;

(8) The potential for health risks caused by human exposure to waste constituents; and

(9) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;

(b) Prevention of any releases that may have adverse effects on human health or the environment due to migration of waste constituents in surface water, or wetlands or on the soil surface considering:

(1) The volume and physical and chemical characteristics of the waste in the unit;

(2) The effectiveness and reliability of containing, confining, and collecting systems and structures in preventing migration;

(3) The hydrologic characteristics of the unit and the surrounding area, including the topography of the land around the unit;

(4) The patterns of precipitation in the region;

(5) The quantity, quality, and direction of ground-water flow;

(6) The proximity of the unit to surface waters;

(7) The current and potential uses of nearby surface waters and any water quality standards established for those surface waters;

(8) The existing quality of surface waters and surface soils, including other sources of contamination and their cumulative impact on surface waters and surface soils;

(9) The patterns of land use in the region;

(10) The potential for health risks caused by human exposure to waste constituents; and

(11) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

(c) Prevention of any release that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering:

(1) The volume and physical and chemical characteristics of the waste in the unit, including its potential for the emission and dispersal of gases, aerosols and particulates;

(2) The effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;

(3) The operating characteristics of the unit;

(4) The atmospheric, meteorologic, and topographic characteristics of the unit and the surrounding area;

(5) The existing quality of the air, including other sources of contamination and their cumulative impact on the air;

(6) The potential for health risks caused by human exposure to waste constituents; and

(7) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

R315-264-602. Monitoring, Analysis, Inspection, Response, Reporting, and Corrective Action.

Monitoring, testing, analytical data, inspections, response, and reporting procedures and frequencies shall ensure compliance with Sections R315-264-601, 15, 33, 75, 76, 77, and 101 as well as meet any additional requirements needed to protect human health and the environment as specified in the permit.

R315-264-603. Post-Closure Care.

A miscellaneous unit that is a disposal unit shall be maintained in a manner that complies with Section R315-264-601 during the post-closure care period. In addition, if a treatment or storage unit has contaminated soils or ground water that cannot be completely removed or decontaminated during closure, then that unit shall also meet the requirements of Section R315-264-601 during post-closure care. The post-closure plan under Section R315-264-118 shall specify the procedures that will be used to satisfy this requirement.

R315-264-1030. Air Emission Standards for Process Vents -- Applicability.

(a) The rules in Sections R315-264-1030 through R315-264-1036 apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes, except as provided in Section R315-264-1.

(b) Except for Subsections R315-264-1034(d) and R315-264-1034(e), Sections R315-264-1030 through R315-264-1036 apply to process vents associated with distillation, fractionation, thin film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw, if these operations are conducted in one of the units listed in Subsections R315-264-1030(b)(1) through R315-264-1030(b)(3):

(1) A unit that is subject to the permitting requirements of Rule R315-270; or

(2) A unit, including a hazardous waste recycling unit, that is not exempt from permitting under Section R315-262-17, that is, a hazardous waste recycling unit that is not a 90-day tank or container, and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of Rule R315-270; or

(3) A unit that is exempt from permitting under Section R315-262-17, that is, a 90-day tank or container, and is not a recycling unit under Section R315-261-6.

(c) For the owner and operator of a facility subject to Sections R315-264-1030 through R315-264-1036 and who received a final permit under Section 19-6-108 before December 6, 1996, the requirements of Sections R315-264-1030 through R315-264-1036 shall be incorporated into the permit if the permit is reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d). Until the date when the owner and operator receive a final permit incorporating the requirements of Sections R315-264-1030 through R315-264-1036, the owner and operator are subject to the requirements of Sections R315-265-1030 through R315-265-1035.

(1) The requirements of Sections R315-264-1032 through R315-264-1036 apply to process vents on hazardous waste recycling units previously exempt under Subsection R315-261-6(c)(1). Other exemptions under Section R315-261-4, and Subsection R35-264-1(g) are not affected by these requirements.

(d) The requirements of Subpart AA 40 CFR do not apply to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, Elkton, Virginia, if that facility is operated in compliance with the requirements contained in a permit issued pursuant to 40 CFR 52.2454. The requirements of Subpart AA 40 CFR shall apply to the facility upon termination of the permit issued pursuant to the 40 CFR 52.2454.

(e) The requirements of Sections R315-264-1030 through R315-264-1036 do not apply to the process vents at a facility if the facility owner or operator certifies that each of the process vents that would otherwise be subject to Sections R315-264-1030 through R315-264-1036 are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable regulation codified under the Utah Air Conservation Act. The documentation of compliance under rules codified under the Utah Air Conservation Act shall be kept with, or made readily available with, the facility operating record.

R315-264-1031. Definitions.

As used in Sections R315-264-1030 through 1036, all terms not defined herein shall have the meaning given them in RCRA and Rules R315-260 through 266.

(a) Air stripping operation is a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers, and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

(b) Bottoms receiver means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

(c) Closed-vent system means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

(d) Condenser means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

(e) Connector means flanged, screwed, welded, or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

(f) Continuous recorder means a data-recording device recording an instantaneous data value at least once every 15 minutes.

(g) Control device means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of

which is the recovery or capture of solvents or other organics for use, reuse, or sale, e.g., a primary condenser on a solvent recovery unit, is not a control device.

(h) Control device shutdown means the cessation of operation of a control device for any purpose.

(i) Distillate receiver means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

(j) Distillation operation means an operation, either batch or continuous, separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

(k) Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

(l) Equipment means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by Sections R315-264-1030 through 1036.

(m) Flame zone means the portion of the combustion chamber in a boiler occupied by the flame envelope.

(n) Flow indicator means a device that indicates whether gas flow is present in a vent stream.

(o) First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

(p) Fractionation operation means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

(q) Hazardous waste management unit shutdown means a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit for less than 24 hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

(r) Hot well means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

(s) In gas/vapor service means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

(t) In heavy liquid service means that the piece of equipment is not in gas/vapor service or in light liquid service.

(u) In light liquid service means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20 degrees C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kilopascals (kPa) at 20 degrees C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

(v) In situ sampling systems means nonextractive samplers or in-line samplers.

(w) In vacuum service means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

(x) Malfunction means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are increased.

(y) Open-ended valve or line means any valve, except pressure relief valves, having one side of the valve seat in contact with hazardous waste and one side open to the atmosphere, either directly or through open piping.

(z) Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

(aa) Process heater means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

(bb) Process vent means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

(cc) Repaired means that equipment is adjusted, or otherwise altered, to eliminate a leak.

(dd) Sampling connection system means an assembly of equipment within a process or waste management unit used during periods of representative operation to take samples of the process or waste fluid. Equipment used to take non-routine grab samples is not considered a sampling connection system.

(ee) Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

(ff) Separator tank means a device used for separation of two immiscible liquids.

(gg) Solvent extraction operation means an operation or method of separation in which a solid or solution is contacted with a liquid solvent, the two being mutually insoluble, to preferentially dissolve and transfer one or more components into the solvent.

(hh) Startup means the setting in operation of a hazardous waste management unit or control device for any purpose.

(ii) Steam stripping operation means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly into the charge.

(jj) Surge control tank means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

(kk) Thin-film evaporation operation means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

(ll) Vapor incinerator means any enclosed combustion device that is used for destroying organic compounds and does not extract

energy in the form of steam or process heat.

(mm) Vented means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading, working losses, or by natural means such as diurnal temperature changes.

R315-264-1032. Standards: Process Vents.

(a) The owner or operator of a facility with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations of at least 10 ppmw shall either:

(1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr), or

(2) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

(b) If the owner or operator installs a closed-vent system and control device to comply with the provisions of Subsection R315-264-1032(a) the closed-vent system and control device shall meet the requirements of Section R315-264-1033.

(c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests shall conform with the requirements of Subsection R315-264-1034(c).

(d) When an owner or operator and the Director do not agree on determinations of vent emissions and/or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures in Subsection R315-264-1034(c) shall be used to resolve the disagreement.

R315-264-1033. Standards: Closed-Vent Systems and Control Devices.

(a)(1) Owners or operators of closed-vent systems and control devices used to comply with provisions of Sections R315-264-1030 through 1036 shall comply with the provisions of Section R315-264-1033.

(2)(i) The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of Sections R315-264-1030 through 1036 on the effective date that the facility becomes subject to the provisions of Sections R315-264-1030 through 1036 shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to Sections R315-264-1030 through 1036 for installation and startup.

(ii) Any unit that begins operation after December 21, 1990, and is subject to the provisions of Sections R315-264-1030 through 1036 when operation begins, shall comply with the rules immediately, i.e., shall have control devices installed and operating on startup of the affected unit; the 30-month implementation schedule does not apply.

(iii) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to Sections R315-264-1030 through 1036 shall comply with all requirements of Sections R315-264-1030 through 1036 as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by Sections R315-264-1030 through 1036 cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of Sections R315-264-1030 through 1036. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

(iv) Owners and operators of facilities and units that become newly subject to the requirements of Sections R315-264-1030 through 1036 after December 8, 1997, due to an action other than those described in Subsection R315-264-1033(a)(2)(iii) shall comply with all applicable requirements immediately, i.e., shall have control devices installed and operating on the date the facility or unit becomes subject to Sections R315-264-1030 through 1036; the 30-month implementation schedule does not apply.

(b) A control device involving vapor recovery, e.g., a condenser or adsorber, shall be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Subsection R315-264-1032(a)(1) for all affected process vents can be attained at an efficiency less than 95 weight percent.

(c) An enclosed combustion device, e.g., a vapor incinerator, boiler, or process heater, shall be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 degrees C. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame zone of the boiler or process heater.

(d)(1) A flare shall be designed for and operated with no visible emissions as determined by the methods specified in Subsection R315-264-1033(e)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) A flare shall be operated with a flame present at all times, as determined by the methods specified in Subsection R315-264-1033(f)(2)(iii).

(3) A flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in Subsection R315-264-1033(e)(2).

(4)(i) A steam-assisted or nonassisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-264-1033(e)(3), less than 18.3 m/s (60 ft/s), except as provided in Subsections R315-264-133(d)(4)(ii) and (iii).

(ii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-264-1033(e)(3), equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-264-1033(e)(3), less than the velocity, Vmax, as determined by the method specified in Subsection R315-264-1033(e)(4) and less than 122 m/s (400 ft/s) is allowed.

(5) An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, Vmax, as determined by the method specified in Subsection R315-264-1033(e)(5).

(6) A flare used to comply with Section R315-24-1033 shall be steam-assisted, air-assisted, or nonassisted.

(e)(1) Reference Method 22 in 40 CFR part 60 shall be used to determine the compliance of a flare with the visible emission provisions of Sections R315-264-1030 through 1036. The observation period is 2 hours and shall be used according to Method 22.

(2) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

Ht = K times the summation product of Ci and Hi from i equals 1 to n

where:

Ht = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 degrees C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mol is 20 degrees C;

K = Constant, 1.74×10^{-7} (1/ppm) (g mol/scm) (MJ/kcal) where standard temperature for (g mol/scm) is 20 degrees C;

Ci = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR part 60 and measured for hydrogen and carbon monoxide by ASTM D 1946-82, incorporated by reference as specified in Section R315-260-11; and

Hi = Net heat of combustion of sample component i, kcal/9 mol at 25 degrees C and 760 mm Hg. The heats of combustion may be determined using ASTM D 2382-83, incorporated by reference as specified in Section R315-260-11, if published values are not available or cannot be calculated.

(3) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate, in units of standard temperature and pressure, as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR part 60 as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(4) The maximum allowed velocity in m/s, Vmax, for a flare complying with Subsection R315-264-1033(d)(4)(iii) shall be determined by the following equation:

$\text{Log10}(\text{Vmax}) = (\text{HT}+28.8)/31.7$

where:

28.8 = Constant,

31.7 = Constant,

HT = The net heating value as determined in Subsection R315-264-1033(e)(2).

(5) The maximum allowed velocity in m/s, Vmax, for an air-assisted flare shall be determined by the following equation:

$\text{Vmax} = 8.706+0.7084\ (\text{HT})$

where:

8.706 = Constant,

0.7084 = Constant,

HT = The net heating value as determined in Subsection R315-264-1033(e)(2).

(f) The owner or operator shall monitor and inspect each control device required to comply with Section R315-264-1033 to ensure proper operation and maintenance of the control device by implementing the following requirements:

(1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

(2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

(i) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of plus or minus 1 percent of the temperature being monitored in degrees C or +/- 0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

(ii) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have an accuracy of plus or minus 1 percent of the temperature being monitored in degrees C or +/- 0.5 degrees C, whichever is greater. One temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(iii) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

(iv) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of plus or minus 1 percent of the temperature being monitored in degrees C or plus or minus 0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the furnace

downstream of the combustion zone.

(v) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used.

(vi) For a condenser, either:

(A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser, or

(B) A temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of plus or minus 1 percent of the temperature being monitored in degrees Celsius, or plus or minus 0.5 degrees C, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit, i.e., product side.

(vii) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:

(A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or

(B) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

(3) Inspect the readings from each monitoring device required by Subsections R315-24-1033(f)(1) and (2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of Section R315-264-1033.

(g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Subsection R315-264-1035(b)(4)(iii)(F).

(h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

(1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Subsection R315-264-1035(b)(4)(iii)(G), whichever is longer.

(2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Subsection R315-264-1035(b)(4)(iii)(G).

(i) An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.

(j) An owner or operator of an affected facility seeking to comply with the provisions of Rule R315-264 by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

(k) A closed-vent system shall meet either of the following design requirements:

(1) A closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure in Subsection R315-264-1034(b), and by visual inspections; or

(2) A closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.

(l) The owner or operator shall monitor and inspect each closed-vent system required to comply with Section R315-264-1033 to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:

(1) Each closed-vent system that is used to comply with Subsection R315-264-1033(k)(1) shall be inspected and monitored in accordance with the following requirements:

(i) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to Section R315-264-1033. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in Subsection R315-264-1034(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

(ii) After initial leak detection monitoring required in Subsection R315-264-1033(l)(1)(i), the owner or operator shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed, e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange, shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the procedures specified in Subsection R315-264-1034(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced, e.g., a section of damaged hard piping is replaced with new hard piping, or the connection is unsealed, e.g., a flange is unbolted.

(B) Closed-vent system components or connections other than those specified in Subsection R315-264-1033(l)(1)(ii)(A) shall be monitored annually and at other times as requested by the Director, except as provided for in Subsection R315-264-1033(o), using the procedures specified in Subsection R315-264-1034(b) to demonstrate that the components or connections operate with no detectable

emissions.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of Subsection R315-264-1033(l)(3).

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Subsection R315-264-1035.

(2) Each closed-vent system that is used to comply with Subsection R315-264-1033(k)(2) shall be inspected and monitored in accordance with the following requirements:

(i) The closed-vent system shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.

(ii) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to Section R315-264-1033. Thereafter, the owner or operator shall perform the inspections at least once every year.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1033(l)(3).

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Subsection R315-264-1035.

(3) The owner or operator shall repair all detected defects as follows:

(i) Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in Subsection R315-264-1033(l)(3)(iii).

(ii) A first attempt at repair shall be made no later than 5 calendar days after the emission is detected.

(iii) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

(iv) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in Section R315-264-1035.

(m) Closed-vent systems and control devices used to comply with provisions of Sections R315-264-1033 through 1036 shall be operated at all times when emissions may be vented to them.

(n) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon:

(1) Regenerated or reactivated in a thermal treatment unit that meets one of the following:

(i) The owner or operator of the unit has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-600 through 603; or

(ii) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Sections R315-264-1030 through 1036 and 1080 through 1090 or 40 CFR 265.1030 through 1035 and 1080 through 1090, which are adopted by reference; or

(iii) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under Section R315-307-214-1, which incorporates 40 CFR part 61 or Section R307-214-2, which incorporates 40 CFR part 63.

(2) Incinerated in a hazardous waste incinerator for which the owner or operator either:

(i) Has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-340 through 351; or

(ii) Has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR 265.340 through 352, which are adopted by reference.

(3) Burned in a boiler or industrial furnace for which the owner or operator either:

(i) Has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-266-100 through 112; or

(ii) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Sections R315-266-100 through 112.

(o) Any components of a closed-vent system that are designated, as described in Subsection R315-264-1035(c)(9), as unsafe to monitor are exempt from the requirements of Subsection R315-264-1033(l)(1)(ii)(B) if:

(1) The owner or operator of the closed-vent system determines that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection R315-264-1033(l)(1)(ii)(B); and

(2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in Subsection R315-264-1033(l)(1)(ii)(B) as frequently as practicable during safe-to-monitor times.

R315-264-1034. Test Methods and Procedures.

(a) Each owner or operator subject to the provisions of Sections R315-264-1030 through 1036 shall comply with the test methods and procedures requirements provided in Section R315-264-1034.

(b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Subsection R315-264-1033(l), the test shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air, less than 10 ppm of hydrocarbon in air.

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The background level shall be determined as set forth in Reference Method 21.

(6) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(c) Performance tests to determine compliance with Subsection R315-264-1032(a) and with the total organic compound concentration limit of Subsection R315-264-1033(c) shall comply with the following:

(1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices shall be conducted and data reduced in accordance with the following reference methods and calculation procedures:

(i) Method 2 in 40 CFR part 60 for velocity and volumetric flow rate.

(ii) Method 18 or Method 25A in 40 CFR part 60, appendix A, for organic content. If Method 25A is used, the organic HAP used as the calibration gas shall be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(iii) Each performance test shall consist of three separate runs; each run conducted for at least 1 hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs shall apply. The average shall be computed on a time-weighted basis.

(iv) Total organic mass flow rates shall be determined by the following equation:

(A) For sources utilizing Method 18.

The equation found in 40 CFR 264.1034(c)(1)(iv)(A), 2015 edition, is adopted and incorporated by reference.

Where:

Eh = Total organic mass flow rate, kg/h;

Q2sd = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

n = Number of organic compounds in the vent gas;

Ci = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18;

MWi = Molecular weight of organic compound i in the vent gas, kg/kg-mol;

0.0416 = Conversion factor for molar volume, kg-mol/m3, at 293 K and 760 mm Hg;

10^{-6} = Conversion from ppm

(B) For sources utilizing Method 25A.

$Eh = (Q)(C)(MW)(0.0416)(10^{-6})$

Where:

Eh = Total organic mass flow rate, kg/h;

Q = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h;

C = Organic concentration in ppm, dry basis, as determined by Method 25A;

MW = Molecular weight of propane, 44;

0.0416 = Conversion factor for molar volume, kg-mol/m3, at 293 K and 760 mm Hg;

10^{-6} = Conversion from ppm.

(v) The annual total organic emission rate shall be determined by the following equation:

EA = (Eh)(H)

where:

EA = Total organic mass emission rate, kg/y;

Eh = Total organic mass flow rate for the process vent, kg/h;

H = Total annual hours of operations for the affected unit, h.

(vi) Total organic emissions from all affected process vents at the facility shall be determined by summing the hourly total organic mass emission rates, Eh as determined in Subsection R315-264-1034(c)(1)(iv), and by summing the annual total organic mass emission rates, EA, as determined in Subsection R315-264-1034(c)(1)(v), for all affected process vents at the facility.

(2) The owner or operator shall record such process information as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

(3) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for the test methods specified in Subsection R315-264-1034(c)(1).

(ii) Safe sampling platform(s).

(iii) Safe access to sampling platform(s).

(iv) Utilities for sampling and testing equipment.

(4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs shall be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Director's approval, be determined using the average of the results of the two other runs.

(d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of Sections R315-264-1030 through 1036, the owner or operator shall make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:

(1) Direct measurement of the organic concentration of the waste using the following procedures:

(i) The owner or operator shall take a minimum of four grab samples of waste for each waste stream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

(ii) For waste generated onsite, the grab samples shall be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples shall be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

(iii) Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060A, incorporated by reference under Section R315-260-11, of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, or analyzed for its individual organic constituents.

(iv) The arithmetic mean of the results of the analyses of the four samples shall apply for each waste stream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each waste stream managed in the unit.

(2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a waste stream having a total organic content less than 10 ppmw, or prior speciation analysis results on the same waste stream where it can also be documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

(e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations manage hazardous wastes with time-weighted, annual average total organic concentrations less than 10 ppmw shall be made as follows:

(1) By the effective date that the facility becomes subject to the provisions of Sections R315-264-1030 through 1036 or by the date when the waste is first managed in a waste management unit, whichever is later, and

(2) For continuously generated waste, annually, or

(3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.

(f) When an owner or operator and the Director do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the dispute may be resolved by using direct measurement as specified at Subsection R315-264-1034(d)(1).

R315-264-1035. Recordkeeping Requirements.

(a)(1) Each owner or operator subject to the provisions of Sections R315-264-1030 through 1036 shall comply with the recordkeeping requirements of Section R315-264-1035.

(2) An owner or operator of more than one hazardous waste management unit subject to the provisions of Sections R315-264-1030 through 1036 may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

(b) Owners and operators shall record the following information in the facility operating record:

(1) For facilities that comply with the provisions of Subsection R315-264-1033(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule shall also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule shall be in the facility operating record by the effective date that the facility becomes subject to the provisions of Sections R315-264-1030 through 1036.

(2) Up-to-date documentation of compliance with the process vent standards in Section R315-264-1032, including:

(i) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility, i.e., the total emissions for all affected vents at the facility, and the approximate location within the facility of each affected unit, e.g., identify the hazardous waste management units on a facility plot plan.

(ii) Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions shall be made using operating parameter values, e.g., temperatures, flow rates, or vent stream organic compounds and concentrations, that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action, e.g., managing a

waste of different composition or increasing operating hours of affected waste management units, that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

(3) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan shall include:

(i) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

(ii) A detailed engineering description of the closed-vent system and control device including:

(A) Manufacturer's name and model number of control device.

(B) Type of control device.

(C) Dimensions of the control device.

(D) Capacity.

(E) Construction materials.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(4) Documentation of compliance with Section R315-264-1033 shall include the following information:

(i) A list of all information references and sources used in preparing the documentation.

(ii) Records, including the dates, of each compliance test required by Subsection R315-264-1033(k).

(iii) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," incorporated by reference as specified in Section R315-260-11, or other engineering texts acceptable to the Director that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsections R315-264-1035(b)(4)(iii)(A) through (b)(4)(iii)(G) may be used to comply with this requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as specified below.

(A) For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

(B) For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

(C) For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone.

(D) For a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in Subsection R315-264-1033(d).

(E) For a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and design average temperatures of the coolant fluid at the condenser inlet and outlet.

(F) For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

(G) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(iv) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(v) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Subsection R315-264-1032(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Subsection R315-264-1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

(vi) If performance tests are used to demonstrate compliance, all test results.

(c) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Rule R315-264 shall be recorded and kept up-to-date in the facility operating record. The

information shall include:

(1) Description and date of each modification that is made to the closed-vent system or control device design.

(2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Subsections R315-264-1033(f)(1) and (f)(2).

(3) Monitoring, operating, and inspection information required by Subsections R315-264-1033(f) through (k).

(4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:

(i) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760 degrees C, period when the combustion temperature is below 760 degrees C.

(ii) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, period when the combustion zone temperature is more than 28 degrees C below the design average combustion zone temperature established as a requirement of Subsection R315-264-1035(b)(4)(iii)(A).

(iii) For a catalytic vapor incinerator, period when:

(A) Temperature of the vent stream at the catalyst bed inlet is more than 28 degrees C below the average temperature of the inlet vent stream established as a requirement of Subsection R315-264-1035(b)(4)(iii)(B), or

(B) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of Subsection R315-264-1035(b)(4)(iii)(B).

(iv) For a boiler or process heater, period when:

(A) Flame zone temperature is more than 28 degrees C below the design average flame zone temperature established as a requirement of Subsection R315-264-1035(b)(4)(iii)(C), or

(B) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of Subsection R315-264-1035(b)(4)(iii)(C).

(v) For a flare, period when the pilot flame is not ignited.

(vi) For a condenser that complies with Subsection R315-264-1033(f)(2)(vi)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of Subsection R315-264-1035(b)(4)(iii)(E).

(vii) For a condenser that complies with Subsection R315-264-1033(f)(2)(vi)(B), period when:

(A) Temperature of the exhaust vent stream from the condenser is more than 6 degrees C above the design average exhaust vent stream temperature established as a requirement of Subsection R315-264-1035(b)(4)(iii)(E); or

(B) Temperature of the coolant fluid exiting the condenser is more than 6 degrees C above the design average coolant fluid temperature at the condenser outlet established as a requirement of Subsection R315-264-1035(b)(4)(iii)(E).

(viii) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Subsection R315-264-1033(f)(2)(vii)(A), period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of Subsection R315-264-1035(b)(4)(iii)(F).

(ix) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Subsection R315-264-1033(f)(2)(vii)(B), period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of Subsection R315-264-1035(b)(4)(iii)(F).

(5) Explanation for each period recorded under Subsection R315-264-1035(4) of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

(6) For a carbon adsorption system operated subject to requirements specified in Subsection R315-264-1033(g) or (h)(2), date when existing carbon in the control device is replaced with fresh carbon.

(7) For a carbon adsorption system operated subject to requirements specified in Subsection R315-264-1033(h)(1), a log that records:

(i) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

(ii) Date when existing carbon in the control device is replaced with fresh carbon.

(8) Date of each control device startup and shutdown.

(9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Subsection R315-264-1033(o) shall record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Subsection R315-264-1033(o), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.

(10) When each leak is detected as specified in Subsection R315-264-1033(l), the following information shall be recorded:

(i) The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number.

(ii) The date the leak was detected and the date of first attempt to repair the leak.

(iii) The date of successful repair of the leak.

(iv) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonrepairable.

(v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(A) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such

cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(B) If delay of repair was caused by depletion of stocked parts, there shall be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(d) Records of the monitoring, operating, and inspection information required by Subsections R315-264-1035(c)(3) through (c)(10) shall be maintained by the owner or operator for at least 3 years following the date of each occurrence, measurement, maintenance, corrective action, or record.

(e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Director shall specify the appropriate recordkeeping requirements.

(f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section R315-264-1032 including supporting documentation as required by Subsection R315-264-1034(d)(2) when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used, shall be recorded in a log that is kept in the facility operating record.

R315-264-1036. Reporting Requirements.

(a) A semiannual report shall be submitted by owners and operators subject to the requirements of Sections R315-264-1030 through 1036 to the Director by dates specified by the Director. The report shall include the following information:

(1) The Environmental Protection Agency identification number, name, and address of the facility.

(2) For each month during the semiannual reporting period, dates when the control device exceeded or operated outside of the design specifications as defined in Subsection R315-264-1035(c)(4) and as indicated by the control device monitoring required by Subsection R315-264-1033(f) and such exceedances were not corrected within 24 hours, or that a flare operated with visible emissions as defined in Subsection R315-264-1033(d) and as determined by Method 22 monitoring, the duration and cause of each exceedance or visible emissions, and any corrective measures taken.

(b) If, during the semiannual reporting period, the control device does not exceed or operate outside of the design specifications as defined in Subsection R315-264-264-1035(c)(4) for more than 24 hours or a flare does not operate with visible emissions as defined in Subsection R315-264-264-1033(d), a report to the Director is not required.

R315-264-1050. Air Emission Standards for Equipment Leaks -- Applicability.

(a) The requirements in Sections R315-264-1050 through R315-264-1065 apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes, except as provided in Section R315-264-1.

(b) Except as provided in Subsection R315-264-1064(k), Sections R315-264-1050 through R315-264-1065 apply to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10% by weight that are managed in one of the units listed in Subsections R315-264-1050(b)(1) through R315-264-1050(b)(3):

(1) A unit that is subject to the permitting requirements of Rule R315-270; or

(2) A unit, including a hazardous waste recycling unit, that is not exempt from permitting under Section R315-262-17, that is, a hazardous waste recycling unit that is not a 90-day tank or container, and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of Rule R315-270; or

(3) A unit that is exempt from permitting under Section R315-262-17, that is, a 90-day tank or container, and is not a recycling unit under Section R315-261-6.

(c) For the owner or operator of a facility subject to Sections R315-264-1050 through R315-264-1065 and who received a final permit under RCRA Section 3005 before December 6, 1996, the requirements of Sections R315-264-1050 through R315-264-1065 shall be incorporated into the permit if the permit is reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d). Until the date when the owner or operator receives a final permit incorporating the requirements of Sections R315-264-1050 through R315-264-1065, the owner or operator is subject to the requirements of Sections R315-265-1050 through R315-265-1064.

(d) Each piece of equipment that Sections R315-264-1050 through R315-264-1065 applies to shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.

(e) Equipment that is in vacuum service is excluded from the requirements of Sections R315-264-1052 through R315-264-1060 if it is identified as required in Subsection R315-264-1064(g)(5).

(f) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for less than 300 hours per calendar year is excluded from the requirements of Sections R315-264-1052 through R315-264-1060 if it is identified, as required in Subsection R315-264-1064(g)(6).

(g) The requirements of Subpart BB 40 CFR do not apply to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, Elkton, Virginia, if that facility is operated in compliance with the requirements contained in a permit issued pursuant to 40 CFR 52.2454. The requirements of Subpart BB 40 CFR shall apply to the facility upon termination of the permit issued pursuant to the 40 CFR 52.2454.

(h) Purged coatings and solvents from surface coating operations subject to the national emission standards for hazardous air pollutants (NESHAP) for the surface coating of automobiles and light-duty trucks at Subsection R307-214-2(61), which incorporates 40 CFR part 63 subpart IIII, are not subject to the requirements of Sections R315-264-1050 through R315-264-1065.

(1) The requirements of Sections R315-264-1052 through R315-264-1065 apply to equipment associated with hazardous waste recycling units previously exempt under Subsection R315-261-6(c)(1). Other exemptions under Section R315-261-4, and Subsection R315-264-1(g) are not affected by these requirements.

R315-264-1051. Definitions.

As used in Sections R315-264-1050 through 1065, all terms shall have the meaning given them in Section R315-264-1031, RCRA, and Rules R315-260 through 266.

R315-264-1052. Standards: Pumps in Light Liquid Service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in Subsection R315-264-1063(b), except as provided in Subsections R315-264-1052(d), (e), and (f).

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-264-1059.

(2) A first attempt at repair, e.g., tightening the packing gland, shall be made no later than 5 calendar days after each leak is detected.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Subsection R315-264-1052(a), provided the following requirements are met:

(1) Each dual mechanical seal system shall be:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure, or

(ii) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-264-1060, or

(iii) Equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere.

(2) The barrier fluid system shall not be a hazardous waste with organic concentrations 10 percent or greater by weight.

(3) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump shall be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5)(i) Each sensor as described in Subsection R315-264-1052(d)(3) shall be checked daily or be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly.

(ii) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6)(i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in Subsection R315-264-1052(d)(5)(ii), a leak is detected.

(ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-264-1059.

(iii) A first attempt at repair, e.g., relapping the seal, shall be made no later than 5 calendar days after each leak is detected.

(e) Any pump that is designated, as described in Subsection R315-264-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsections R315-264-1052(a), (c), and (d) if the pump meets the following requirements:

(1) Shall have no externally actuated shaft penetrating the pump housing.

(2) Shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Subsection R315-264-1063(c).

(3) Shall be tested for compliance with Subsection R315-264-1052(e)(2) initially upon designation, annually, and at other times as requested by the Director.

(f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section R315-264-1060, it is exempt from the requirements of Subsections R315-264-1052(a) through (e).

R315-264-1053. Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in Subsections R315-264-1053(h) and (i).

(b) Each compressor seal system as required in Subsection R315-264-1053(a) shall be:

(1) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure, or

(2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-264-1060, or

(3) Equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to atmosphere.

(c) The barrier fluid shall not be a hazardous waste with organic concentrations 10 percent or greater by weight.

(d) Each barrier fluid system as described in Subsections R315-264-1053(a) through (c) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in Subsection R315-264-1053(d) shall be checked daily or shall be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned

plant site, in which case the sensor shall be checked daily.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under Subsection R315-264-1053(e)(2), a leak is detected.

(g)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-264-1059.

(2) A first attempt at repair, e.g., tightening the packing gland, shall be made no later than 5 calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of Subsections R315-264-1053(a) and (b) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section R315-264-1060, except as provided in Subsection R315-264-1053(i).

(i) Any compressor that is designated, as described in Subsection R315-264-1064(g)(2), for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of Subsections R315-264-1053(a) through (h) if the compressor:

(1) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-264-1063(c).

(2) Is tested for compliance with Subsection R315-264-1053(i)(1) initially upon designation, annually, and at other times as requested by the Director.

R315-264-1054. Standards: Pressure Relief Devices in Gas/Vapor Service.

(a) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-264-1063(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Section R315-264-1059.

(2) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-264-1063(c).

(c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section R315-264-264-1060 is exempt from the requirements of Subsection R315-264-1054(a) and (b).

R315-264-1055. Standards: Sampling Connection Systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. This system shall collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in Subsection R315-264-1055(a) shall meet one of the following requirements:

(1) Return the purged process fluid directly to the process line;

(2) Collect and recycle the purged process fluid; or

(3) Be designed and operated to capture and transport all the purged process fluid to a waste management unit that complies with the applicable requirements of Sections R315-264-1084 through 1086 or a control device that complies with the requirements of Section R315-264-1060.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of Subsections R315-264-1055(a) and (b).

R315-264-1056. Standards: Open-Ended Valves or Lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous waste stream end is closed before the second valve is closed.

(c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with Subsection R315-264-1056(a) at all other times.

R315-264-1057. Standards: Valves in Gas/Vapor Service or in Light Liquid Service.

(a) Each valve in gas/vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in Subsection R315-264-1063(b) and shall comply with Subsections R315-264-1057(b) through (e), except as provided in Subsections R315-264-1057(f), (g), and (h), and Sections R315-264-1061 and 1062.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months,

(d)(1) When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section R315-264-1059.

(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(e) First attempts at repair include, but are not limited to, the following best practices where practicable:

(1) Tightening of bonnet bolts.

(2) Replacement of bonnet bolts.

(3) Tightening of packing gland nuts.

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in Subsection R315-264-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsection R315-264-1057(a) if the valve:

(1) Has no external actuating mechanism in contact with the hazardous waste stream.

(2) Is operated with emissions less than 500 ppm above background as determined by the method specified in Subsection R315-264-1063(c).

(3) Is tested for compliance with Subsection R315-264-1057(f)(2) initially upon designation, annually, and at other times as requested by the Director.

(g) Any valve that is designated, as described in Subsection R315-264-1064(h)(1), as an unsafe-to-monitor valve is exempt from the requirements of Subsection R315-264-1057(a) if:

(1) The owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection R315-264-1057(a).

(2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in Subsection R315-264-1064(h)(2), as a difficult-to-monitor valve is exempt from the requirements of Subsection R315-264-1057(a) if:

(1) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

(2) The hazardous waste management unit within which the valve is located was in operation before June 21, 1990.

(3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

R315-264-1058. Standards: Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors.

(a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within 5 days by the method specified in Subsection R315-264-1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section R315-264-1059.

(2) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) First attempts at repair include, but are not limited to, the best practices described under Subsection R315-264-1057(e).

(e) Any connector that is inaccessible or is ceramic or ceramic-lined, e.g., porcelain, glass, or glass-lined, is exempt from the monitoring requirements of Subsection R315-264-1058(a) and from the recordkeeping requirements of Section R315-264-1064.

R315-264-1059. Standards: Delay of Repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In such a case, repair of this equipment shall occur before the end of the next hazardous waste management unit shutdown.

(b) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight.

(c) Delay of repair for valves will be allowed if:

(1) The owner or operator determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section R315-264-1060.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.

(2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(e) Delay of repair beyond a hazardous waste management unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous waste

management unit shutdown will not be allowed unless the next hazardous waste management unit shutdown occurs sooner than 6 months after the first hazardous waste management unit shutdown.

R315-264-1060. Standards: Closed-Vent Systems and Control Devices.

(a) Owners and operators of closed-vent systems and control devices subject to Sections R315-264-1050 through 1065 shall comply with the provisions of Section R315-264-1033.

(b)(1) The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of Sections R315-264-1050 through 1065 on the effective date that the facility becomes subject to the provisions of Sections R315-264-1050 through 1065 shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to Sections R315-264-1050 through 1065 for installation and startup.

(2) Any unit that begins operation after December 21, 1990, and is subject to the provisions of Sections R315-264-1050 through 1065 when operation begins, shall comply with the rules immediately, i.e., shall have control devices installed and operating on startup of the affected unit; the 30-month implementation schedule does not apply.

(3) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to Sections R315-264-1050 through 1065 shall comply with all requirements of Sections R315-264-1050 through 1065 as soon as practicable but no later than 30 months after the amendment's effective date. When control equipment required by Sections R315-264-1050 through 1065 cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award or contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of Sections R315-264-1050 through 1065. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

(4) Owners and operators of facilities and units that become newly subject to the requirements of Sections R315-264-1050 through 1065 after December 8, 1997, due to an action other than those described in Subsection R315-264-1060(b)(3) shall comply with all applicable requirements immediately, i.e., shall have control devices installed and operating on the date the facility or unit becomes subject to Sections R315-264-1050 through 1065; the 30-month implementation schedule does not apply.

R315-264-1061. Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Percentage of Valves Allowed to Leak.

(a) An owner or operator subject to the requirements of Section R315-264-1057 may elect to have all valves within a hazardous waste management unit comply with an alternative standard that allows no greater than 2 percent of the valves to leak.

(b) The following requirements shall be met if an owner or operator decides to comply with the alternative standard of allowing 2 percent of valves to leak:

(1) A performance test as specified in Section R315-264-1061(c) shall be conducted initially upon designation, annually, and at other times requested by the Director.

(2) If a valve leak is detected, it shall be repaired in accordance with Subsections R315-264-1057(d) and (e).

(c) Performance tests shall be conducted in the following manner:

(1) All valves subject to the requirements in Section R315-264-1057 within the hazardous waste management unit shall be monitored within 1 week by the methods specified in Subsection R315-264-1063(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves subject to the requirements in Section R315-264-1057 for which leaks are detected by the total number of valves subject to the requirements in Section R315-264-1057 within the hazardous waste management unit.

R315-264-1062. Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Skip Period Leak Detection and Repair.

(a) An owner or operator subject to the requirements of Section R315-264-1057 may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in Subsections R315-264-1062(b)(2) and (3).

(b)(1) An owner or operator shall comply with the requirements for valves, as described in Section R315-264-1057, except as described in Subsections R315-264-1062(b)(2) and (b)(3).

(2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip one of the quarterly leak detection periods, i.e., monitor for leaks once every six months, for the valves subject to the requirements in Section R315-264-1057.

(3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip three of the quarterly leak detection periods, i.e., monitor for leaks once every year, for the valves subject to the requirements in Section R315-264-1057.

(4) If the percentage of valves leaking is greater than 2 percent, the owner or operator shall monitor monthly in compliance with the requirements in Section R315-264-1057, but may again elect to use Section R315-264-1062 after meeting the requirements of Section R315-264-1057(c)(1).

R315-264-1063. Test Methods and Procedures.

(a) Each owner or operator subject to the provisions of Rule R315-264 shall comply with the test methods and procedures requirements provided in Section R315-264-1063.

(b) Leak detection monitoring, as required in Sections R315-264-1052 through 1062, shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air, less than 10 ppm of hydrocarbon in air.

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(c) When equipment is tested for compliance with no detectable emissions, as required in Subsections R315-264-1052(e), 1053(i), 1054, and 1057(f), the test shall comply with the following requirements:

(1) The requirements of Subsections R315-264-1063(b)(1) through (4) shall apply.

(2) The background level shall be determined as set forth in Reference Method 21.

(3) The instrument probe shall be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) In accordance with the waste analysis plan required by Subsection R315-264-13(b), an owner or operator of a facility shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10 percent by weight using the following:

(1) Methods described in ASTM Methods D 2267-88, E 169-87, E 168-88, E 260-85, incorporated by reference under Section R315-260-11);

(2) Method 9060A, incorporated by reference under Section R315-260-11, of "Test Methods for Evaluating Solid Waste," EPA Publication SW-846, for computing total organic concentration of the sample, or analyzed for its individual organic constituents; or

(3) Application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced. Documentation of a waste determination by knowledge is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same waste stream where it can also be documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

(e) If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the determination can be revised only after following the procedures in Subsections R315-264-1063(d)(1) or (d)(2).

(f) When an owner or operator and the Director do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the procedures in Subsections R315-264-1063(d)(1) or (d)(2) can be used to resolve the dispute.

(g) Samples used in determining the percent organic content shall be representative of the highest total organic content hazardous waste that is expected to be contained in or contact the equipment.

(h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents may be obtained from standard reference texts or may be determined by ASTM D-2879-86, incorporated by reference under Section R315-260-11.

(i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction shall comply with the procedures of Sections R315-264-1034(c)(1) through (c)(4).

R315-264-1064. Recordkeeping Requirements.

(a)(1) Each owner or operator subject to the provisions of Sections R315-264-1050 through 1065 shall comply with the recordkeeping requirements of Section R315-264-1064.

(2) An owner or operator of more than one hazardous waste management unit subject to the provisions of Sections R315-264-1050 through 1065 may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

(b) Owners and operators shall record the following information in the facility operating record:

(1) For each piece of equipment to which Sections R315-264-1050 through 1065 apply:

(i) Equipment identification number and hazardous waste management unit identification.

(ii) Approximate locations within the facility, e.g., identify the hazardous waste management unit on a facility plot plan.

(iii) Type of equipment, e.g., a pump or pipeline valve.

(iv) Percent-by-weight total organics in the hazardous waste stream at the equipment.

(v) Hazardous waste state at the equipment, e.g., gas/vapor or liquid.

(vi) Method of compliance with the standard, e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals."

(2) For facilities that comply with the provisions of Subsection R315-264-1033(a)(2), an implementation schedule as specified in

Subsection R315-264-1033(a)(2).

(3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Subsection R315-264-1035(b)(3).

(4) Documentation of compliance with Section R315-264-1060, including the detailed design documentation or performance test results specified in Subsection R315-264-1035(b)(4).

(c) When each leak is detected as specified in Sections R315-264-1052, 1053, 1057, and 1058, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Subsection R315-264-1058(a), and the date the leak was detected, shall be attached to the leaking equipment.

(2) The identification on equipment, except on a valve, may be removed after it has been repaired.

(3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Subsection R315-264-1057(c) and no leak has been detected during those 2 months.

(d) When each leak is detected as specified in Subsections R315-264-1052, 1053, 1057, and 1058, the following information shall be recorded in an inspection log and shall be kept in the facility operating record:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date evidence of a potential leak was found in accordance with Subsection R315-264-1058(a).

(3) The date the leak was detected and the dates of each attempt to repair the leak.

(4) Repair methods applied in each attempt to repair the leak.

(5) "Above 10,000" if the maximum instrument reading measured by the methods specified in Subsection R315-264-1063(b) after each repair attempt is equal to or greater than 10,000 ppm.

(6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(7) Documentation supporting the delay of repair of a valve in compliance with Subsection R315-264-1059(c).

(8) The signature of the owner or operator, or designate, whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.

(9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

(10) The date of successful repair of the leak.

(e) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Section R315-264-1060 shall be recorded and kept up-to-date in the facility operating record as specified in Subsection R315-264-1035(c). Design documentation is specified in Subsection R315-264-1035(c)(1) and (c)(2) and monitoring, operating, and inspection information in Subsection R315-264-1035(c)(3)through (c)(8).

(f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Director shall specify the appropriate recordkeeping requirements.

(g) The following information pertaining to all equipment subject to the requirements in Sections R315-264-1052 through 1060 shall be recorded in a log that is kept in the facility operating record:

(1) A list of identification numbers for equipment, except welded fittings, subject to the requirements of Sections R315-264-1050 through 1065.

(2)(i) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Subsections R315-264-1052(e), 1053(i), and 1057(f).

(ii) The designation of this equipment as subject to the requirements of Subsections R315-264-1052(e), 1053(i), or 1057(f) shall be signed by the owner or operator.

(3) A list of equipment identification numbers for pressure relief devices required to comply with Subsection R315-264-1054(a).

(4)(i) The dates of each compliance test required in Subsections R315-264-1052(e), 1053(i), 1054, and 1057(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) Identification, either by list or location, area or group, of equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year.

(h) The following information pertaining to all valves subject to the requirements of Subsections R315-264-1057 (g) and (h) shall be recorded in a log that is kept in the facility operating record:

(1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

(2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

(i) The following information shall be recorded in the facility operating record for valves complying with Section R315-264-1062:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(j) The following information shall be recorded in a log that is kept in the facility operating record:

(1) Criteria required in Subsections R315-264-1052(d)(5)(ii) and 1053(e)(2) and an explanation of the design criteria.

(2) Any changes to these criteria and the reasons for the changes.

(k) The following information shall be recorded in a log that is kept in the facility operating record for use in determining

exemptions as provided in the applicability section of Sections R315-264-1050 through 1065 and other specific sections of Rule R315-264:

(1) An analysis determining the design capacity of the hazardous waste management unit.

(2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Subsections R315-264-1052 through 1060 and an analysis determining whether these hazardous wastes are heavy liquids.

(3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Subsections R315-264-1052 through 1060. The record shall include supporting documentation as required by Subsection R315-264-1063(d)(3) when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used. If the owner or operator takes any action, e.g., changing the process that produced the waste, that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections R315-264-1052 through 1060, then a new determination is required.

(l) Records of the equipment leak information required by Subsection R315-264-1064(d) and the operating information required by Subsection R315-264-1064(e) need be kept only 3 years.

(m) The owner or operator of a facility with equipment that is subject to Sections R315-264-1050 through 1065 and to regulations at 40 CFR part 60, part 61, or part 63 may elect to determine compliance with Sections R315-264-1050 through 1065 either by documentation pursuant to Section R315-264-1064, or by documentation of compliance with the regulations at 40 CFR part 60, part 61, or part 63 pursuant to the relevant provisions of the regulations at 40 part 60, part 61, or part 63. The documentation of compliance under regulations at 40 CFR part 60, part 61, or part 63 shall be kept with or made readily available with the facility operating record.

R315-264-1065. Reporting Requirements.

(a) A semiannual report shall be submitted by owners and operators subject to the requirements of Sections R315-264-1050 through 1065 to the Director by dates specified by the Director. The report shall include the following information:

(1) The Environmental Protection Agency identification number, name, and address of the facility.

(2) For each month during the semiannual reporting period:

(i) The equipment identification number of each valve for which a leak was not repaired as required in Subsection R315-264-1057(d).

(ii) The equipment identification number of each pump for which a leak was not repaired as required in Subsections R315-264-1052(c) and (d)(6).

(iii) The equipment identification number of each compressor for which a leak was not repaired as required in Subsection R315-264-1053(g).

(3) Dates of hazardous waste management unit shutdowns that occurred within the semiannual reporting period.

(4) For each month during the semiannual reporting period, dates when the control device installed as required by Sections R315-264-1052, 1053, 1054, or 1055 exceeded or operated outside of the design specifications as defined in Subsection R315-264-1064(e) and as indicated by the control device monitoring required by Section R315-264-1060 and was not corrected within 24 hours, the duration and cause of each exceedance, and any corrective measures taken.

(b) If, during the semiannual reporting period, leaks from valves, pumps, and compressors are repaired as required in Subsections R315-264-1057(d), 1052(c) and (d)(6), and 1053(g), respectively, and the control device does not exceed or operate outside of the design specifications as defined in Subsection R315-264-1064(e) for more than 24 hours, a report to the Director is not required.

R315-264-1080. Air Emission Standards for Tanks, Surface Impoundments, and Containers -- Applicability.

(a) The requirements of Sections R315-264-1080 through 1090 apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers subject to either Sections R315-264-170 through 179, 190 through 200, or 220 through 232 except as Section R315-264-1 and Subsection R315-264-1080(b) provide otherwise.

(b) The requirements of Sections R315-264-1080 through 1090 do not apply to the following waste management units at the facility:

(1) A waste management unit that holds hazardous waste placed in the unit before December 6, 1996, and in which no hazardous waste is added to the unit on or after December 6, 1996.

(2) A container that has a design capacity less than or equal to 0.1 cubic meter.

(3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

(4) A surface impoundment in which an owner or operator has stopped adding hazardous waste, except to implement an approved closure plan, and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

(5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is placed in the unit as a result of implementing remedial activities required under the corrective action authorities of RCRA sections 3004(u), 3004(v), or 3008(h); CERCLA authorities; or similar Federal or Utah authorities.

(6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act and the Nuclear Waste Policy Act.

(7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable regulation codified under the Utah Air Conservation Act. For the purpose of complying with Subsection R315-264-1080(b), a tank for which the air emission control includes an enclosure, as opposed to a cover, shall be in compliance with the enclosure and control device requirements of Subsection R315-264-1084(i), except as provided in Subsection R315-264-1082(c)(5).

(8) A tank that has a process vent as defined in Section R315-264-1031.

(c) For the owner and operator of a facility subject to Sections R315-264-1080 through 1090 who received a final permit under RCRA section 3005 prior to December 6, 1996, the requirements of Sections R315-264-1080 through 1090 shall be incorporated into the permit when the permit is reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d). Until such date when the permit is reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d), the owner and operator are subject to the requirements of 40 CFR 265.1080 through 1090, which are adopted by reference.

(d) The requirements of Sections R315-264-1080 through 1090, except for the recordkeeping requirements specified in Subsection R315-264-1089(i), are administratively stayed for a tank or a container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations when the owner or operator of the unit meets all of the following conditions:

(1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purpose of meeting the conditions of Section R315-264-1080, "organic peroxide" means an organic compound that contains the bivalent structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

(2) The owner or operator prepares documentation, in accordance with the requirements of Subsection R315-264-1089(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections R315-264-1084 through 1087 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of Subsection R315-264-1080(d)(1).

(3) The owner or operator notifies the Director in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of Subsection R315-264-1080(d)(1) are managed at the facility in tanks or containers meeting the conditions of Subsection R315-264-1080(d)(2). The notification shall state the name and address of the facility, and be signed and dated by an authorized representative of the facility owner or operator.

R315-264-1081. Definitions.

As used in Sections R315-264-1080 through 1090, all terms shall have the meaning given to them in 40 CFR 265.1081, which is adopted by reference; RCRA; and Rules R315-260 through 266.

R315-264-1082. Standards: General.

(a) Section R315-264-1082 applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to Sections R315-264-1080 through 1090.

(b) The owner or operator shall control air pollutant emissions from each hazardous waste management unit in accordance with standards specified in Sections R315-264-1084 through 1087, as applicable to the hazardous waste management unit, except as provided for in Subsection R315-264-1082(c).

(c) A tank, surface impoundment, or container is exempt from standards specified in Sections R315-264-1084 through 1087, as applicable, provided that the waste management unit is one of the following:

(1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in Subsection R315-264-1083(a). The owner or operator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.

(2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:

(i) A process that removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit (Ct) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process shall be determined using the procedures specified in Subsection R315-264-1083(b).

(ii) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in Subsection R315-264-1083(b).

(iii) A process that removes or destroys the organics contained in the hazardous waste to a level such that the actual organic mass removal rate (MR) for the process is equal to or greater than the required organic mass removal rate (RMR) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process shall be determined using the procedures specified in Subsection R315-264-1083(b).

(iv) A biological process that destroys or degrades the organics contained in the hazardous waste, such that either of the following conditions is met:

(A) The organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the organic biodegradation efficiency (Rbio) for the process is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process shall be determined using the procedures specified in Subsection R315-264-1083(b).

(B) The total actual organic mass biodegradation rate (MRbio) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process shall be determined using the procedures specified in Subsection R315-264-1083(b).

(v) A process that removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:

(A) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is managed continuously in waste management units which use air emission controls in accordance with the standards specified in Sections R315-264-1084 through 1087, as applicable to the waste management unit.

(B) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere. The Director considers a drain system that meets the requirements of Subsection R307-214-2(29), which incorporates 40 CFR part 63, subpart RR-National Emission Standards for Individual Drain Systems to be a closed system.

(C) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination determined for each of the individual waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual waste stream at the point of waste origination shall be determined using the procedures specified in Subsection R315-264-1083(a). The average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in Subsection R315-264-1083(b).

(vi) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination shall be determined using the procedures specified in Subsections R315-264-1083(b) and 1083(a), respectively.

(vii) A hazardous waste incinerator for which the owner or operator has either:

(A) Been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-340 through 351; or

(B) Has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR 265.340 through 352, which are adopted by reference.

(viii) A boiler or industrial furnace for which the owner or operator has either:

(A) Been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-266-100 through 112, or

(B) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Sections R315-266-100 through 112.

(ix) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of Subsections R315-264-1082(c)(2)(i) through (c)(2)(vi), the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

(A) If Method 25D in 40 CFR part 60, appendix A is used for the analysis, one-half the blank value determined in the method at section 4.4 of Method 25D in 40 CFR part 60, appendix A, or a value of 25 ppmw, whichever is less.

(B) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as 1.8*10-6 atmospheres/gram-mole/m3, at 25 degrees Celsius.

(3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of Subsection R315-264-1082(c)(2)(iv).

(4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit either:

(i) Meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Section R315-268-40-Land Disposal Restrictions under Table "Treatment Standards for Hazardous Waste;" or

(ii) The organic hazardous constituents in the waste have been treated by the treatment technology established by the Board for the waste in Subsection R315-268-42(a), or have been removed or destroyed by an equivalent method of treatment approved by EPA pursuant to 40 CFR 268.42(b).

(5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:

(i) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under Section R315-214-1, which incorporates 40 CFR part 61, subpart FF-National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year;

(ii) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996 and

(iii) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.

(d) The Director may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of Section R315-264-1082 as follows:

(1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination shall be performed using direct measurement in accordance with the applicable requirements of Subsection R315-264-1083(a). The waste determination for a hazardous waste at the point of waste treatment shall be performed in accordance with the applicable requirements of Subsection R315-264-1083(b).

(2) In performing a waste determination pursuant to Subsection R315-264-1082(d)(1), the sample preparation and analysis shall be conducted as follows:

(i) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in Subsection R315-264-1082(d)(2)(ii).

(ii) If the Director determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Director may choose an appropriate method.

(3) In a case when the owner or operator is requested to perform the waste determination, the Director may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis.

(4) In a case when the results of the waste determination performed or requested by the Director do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of Subsection R315-264-1082(d)(1) shall be used to establish compliance with the requirements of Sections R315-264-1080 through 1090.

(5) In a case when the owner or operator has used an averaging period greater than 1 hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Director may elect to establish compliance with Sections R315-264-1080 through 1090 by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a 1-hour period as follows:

(i) The average VO concentration of the hazardous waste at the point of waste origination shall be determined by direct measurement in accordance with the requirements of Subsection R315-264-1083(a).

(ii) Results of the waste determination performed or requested by the Director showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw shall constitute noncompliance with Sections R315-264-1080 through 1090 except in a case as provided for in Subsection R315-264-1082(d)(5)(iii).

(iii) For the case when the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than 1 hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given 1-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste, e.g., test results, measurements, calculations, and other documentation, and recorded in the facility records in accordance with the requirements of Subsections R315-264-1083(a) and Section R315-264-1089 shall be considered by the Director together with the results of the waste determination performed or requested by the Director in establishing compliance with Sections R315-264-1080 through 1090.

R315-264-1083. Waste Determination Procedures.

(a) Waste determination procedure to determine average volatile organic (VO) concentration of a hazardous waste at the point of waste origination.

(1) An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Subsection R315-264-1082(c)(1) from using air emission controls in accordance with standards specified in Sections R315-264-1084 through 1087, as applicable to the waste management unit.

(i) An initial determination of the average VO concentration of the waste stream shall be made before the first time any portion of the material in the hazardous waste stream is placed in a waste management unit exempted under the provisions of Subsection R315-264-1082(c)(1) from using air emission controls, and thereafter an initial determination of the average VO concentration of the waste stream shall be made for each averaging period that a hazardous waste is managed in the unit; and

(ii) Perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section R315-264-1082.

(2) For a waste determination that is required by Subsection R315-264-1083(a)(1), the average VO concentration of a hazardous waste at the point of waste origination shall be determined in accordance with the procedures specified in 40 CFR 265.1084(a)(2) through (a)(4), which are adopted by reference.

(b) Waste determination procedures for treated hazardous waste.

(1) An owner or operator shall perform the applicable waste determinations for each treated hazardous waste placed in waste management units exempted under the provisions of Subsections R315-264-1082(c)(2)(i) through (c)(2)(vi) from using air emission controls in accordance with standards specified in Sections R315-264-1084 through 1087, as applicable to the waste management unit.

(i) An initial determination of the average VO concentration of the waste stream shall be made before the first time any portion of the material in the treated waste stream is placed in the exempt waste management unit, and thereafter update the information used for the waste determination at least once every 12 months following the date of the initial waste determination; and

(ii) Perform a new waste determination whenever changes to the process generating or treating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level such that the applicable treatment conditions specified in Subsection R315-264-1082(c)(2) are not achieved.

(2) The waste determination for a treated hazardous waste shall be performed in accordance with the procedures specified in 40 CFR 265.1084(b)(2) through (b)(9), which are adopted by reference, as applicable to the treated hazardous waste.

(c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.

(1) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Subsection R315-264-1084(c).

(2) The maximum organic vapor pressure of the hazardous waste may be determined in accordance with the procedures specified in 40 CFR 265.1084(c)(2) through (c)(4), which are adopted by reference.

(d) The procedure for determining no detectable organic emissions for the purpose of complying with Sections R315-264-1080 through 1090 shall be conducted in accordance with the procedures specified in 40 CFR 265.1084(d), which is adopted by reference.

R315-264-1084. Standards: Tanks.

(a) The provisions of Section R315-264-1084 apply to the control of air pollutant emissions from tanks for which Subsection R315-264-1082(b) references the use of Section R315-264-1084 for such air emission control.

(b) The owner or operator shall control air pollutant emissions from each tank subject to Section R315-264-1084 in accordance with the following requirements as applicable:

(1) For a tank that manages hazardous waste that meets all of the conditions specified in Subsections R315-264-1084(b)(1)(i) through (b)(1)(iii), the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in Subsection R315-264-1084(c) or the Tank Level 2 controls specified in Subsection R315-264-1084(d).

(i) The hazardous waste in the tank has a maximum organic vapor pressure which is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:

(A) For a tank design capacity equal to or greater than 151 cubic meters, the maximum organic vapor pressure limit for the tank is 5.2 kPa.

(B) For a tank design capacity equal to or greater than 75 cubic meters but less than 151 cubic meters, the maximum organic vapor pressure limit for the tank is 27.6 kPa.

(C) For a tank design capacity less than 75 cubic meters, the maximum organic vapor pressure limit for the tank is 76.6 kPa.

(ii) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with Subsection R315-264-1084(b)(1)(i).

(iii) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in 40 CFR 265.1081, which is adopted by reference.

(2) For a tank that manages hazardous waste that does not meet all of the conditions specified in Subsections R315-264-1084(b)(1)(i) through (b)(1)(iii), the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of Subsection R315-264-1084(d). Examples of tanks required to use Tank Level 2 controls include: A tank used for a waste stabilization process; and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in Subsection R315-264-1084(b)(1)(i).

(c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in Subsections R315-264-1084(c)(1) through (c)(4):

(1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure shall be determined using the procedures specified in Subsection R315-264-1083(c). Thereafter, the owner or operator shall perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in Subsection R315-264-1084(b)(1)(i), as applicable to the tank.

(2) The tank shall be equipped with a fixed roof designed to meet the following specifications:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank, e.g., a removable cover mounted on an open-top tank, or may be an integral part of the tank structural design, e.g., a horizontal cylindrical tank equipped with a hatch.

(ii) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(iii) Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either:

(A) Equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

(B) Connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating whenever hazardous waste is managed in the tank, except as provided for in Subsection R315-264-1084(c)(2)(iii)(B)(I) and (II).

(I) During periods when it is necessary to provide access to the tank for performing the activities of Subsection R315-264-1084(c)(2)(iii)(B)(II), venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device.

(II) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for removal of accumulated sludge or other residues from the bottom of the tank.

(iv) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste

to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(3) Whenever a hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(i) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of tank.

(ii) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

(iii) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to Section R315-264-1084. Thereafter, the owner or operator shall perform the inspections at least once every year except under the special conditions provided for in Subsection R315-264-1084(l).

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

(1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in Subsection R315-264-1084(e);

(2) A tank equipped with an external floating roof in accordance with the requirements specified in Subsection R315-264-1084(f)

(3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in Subsection R315-264-1084(g);

(4) A pressure tank designed and operated in accordance with the requirements specified in Subsection R315-264-1084(h); or

(5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in Subsection R315-264-1084(i).

(e) The owner or operator who controls air pollutant emissions from a tank using a fixed roof with an internal floating roof shall meet the requirements specified in Subsections R315-264-1084(e)(1) through (e)(3).

(1) The tank shall be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

(i) The internal floating roof shall be designed to float on the liquid surface except when the floating roof shall be supported by the leg supports.

(ii) The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that meets either of the following requirements:

(A) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in 40 CFR 265.1081, which is adopted by reference; or

(B) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

(iii) The internal floating roof shall meet the following specifications:

(A) Each opening in a noncontact internal floating roof except for automatic bleeder vents, vacuum breaker vents, and the rim space vents is to provide a projection below the liquid surface.

(B) Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

(C) Each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening.

(D) Each automatic bleeder vent and rim space vent shall be gasketed.

(E) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(F) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

(ii) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(iii) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed, i.e., no visible gaps. Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting.

(3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:

(i) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: The internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the hazardous waste surface from the atmosphere; or the slotted membrane has more than 10 percent open area.

(ii) The owner or operator shall inspect the internal floating roof components as follows except as provided in Subsection R315-264-1084(e)(3)(iii):

(A) Visually inspect the internal floating roof components through openings on the fixed-roof, e.g., manholes and roof hatches, at least once every 12 months after initial fill, and

(B) Visually inspect the internal floating roof, primary seal, secondary seal, if one is in service, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every 10 years.

(iii) As an alternative to performing the inspections specified in Subsection R315-264-1084(e)(3)(ii) for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every 5 years.

(iv) Prior to each inspection required by Subsections R315-264-1084(e)(3)(ii) or (e)(3)(iii), the owner or operator shall notify the Director in advance of each inspection to provide the Director with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Director of the date and location of the inspection as follows:

(A) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the Director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-264-1084(e)(3)(iv)(B).

(B) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Director as soon as possible, but no later than 7 calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Director at least 7 calendar days before refilling the tank.

(v) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(4) Safety devices, as defined in 40 CFR 265.1081, which is adopted by reference, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-264-1084(e).

(f) The owner or operator who controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in Subsections R315-264-1084(f)(1) through (f)(3).

(1) The owner or operator shall design the external floating roof in accordance with the following requirements:

(i) The external floating roof shall be designed to float on the liquid surface except when the floating roof shall be supported by the leg supports.

(ii) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in 40 CFR 265.1081, which is adopted by reference. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters per meter of tank diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters. If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.

(B) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters per meter of tank diameter, and the width of any portion of these gaps shall not exceed 1.3 centimeters.

(iii) The external floating roof shall meet the following specifications:

(A) Except for automatic bleeder vents, vacuum breaker vents, and rim space vents, each opening in a noncontact external

floating roof shall provide a projection below the liquid surface.

(B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

(C) Each access hatch and each gauge float well shall be equipped with a cover designed to be bolted or fastened when the cover is secured in the closed position.

(D) Each automatic bleeder vent and each rim space vent shall be equipped with a gasket.

(E) Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(F) Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

(G) Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(H) Each slotted guide pole shall be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.

(I) Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be secured and maintained in a closed position at all times except when the closure device shall be open for access.

(iii) Covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position.

(iv) Automatic bleeder vents shall be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(v) Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(vi) The cap on the end of each unslotted guide pole shall be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank.

(vii) The cover on each gauge hatch or sample well shall be secured in the closed position at all times except when the hatch or well shall be opened for access.

(viii) Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

(3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:

(i) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:

(A) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every 5 years.

(B) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.

(C) If a tank ceases to hold hazardous waste for a period of 1 year or more, subsequent introduction of hazardous waste into the tank shall be considered an initial operation for the purposes of Subsections R315-264-1084(f)(3)(i)(A) and (f)(3)(i)(B).

(D) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure:

(1) The seal gap measurements shall be performed at one or more floating roof levels when the roof is floating off the roof supports.

(2) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter diameter uniform probe passes freely, without forcing or binding against the seal, between the seal and the wall of the tank and measure the circumferential distance of each such location.

(3) For a seal gap measured under Subsection R315-264-1084(f)(3), the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(4) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type as specified in Subsection R315-264-1084(f)(1)(ii).

(E) In the event that the seal gap measurements do not conform to the specifications in Subsection R315-264-1084(f)(1)(ii), the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(ii) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:

(A) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: Holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(B) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the

date that the tank becomes subject to Section R315-264-1084. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-264-1084(l).

(C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(iii) Prior to each inspection required by Subsections R315-264-1084(f)(3)(i) or (f)(3)(ii), the owner or operator shall notify the Director in advance of each inspection to provide the Director with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Director of the date and location of the inspection as follows:

(A) Prior to each inspection to measure external floating roof seal gaps as required under Subsection R315-264-1084(f)(3)(i), written notification shall be prepared and sent by the owner or operator so that it is received by the Director at least 30 calendar days before the date the measurements are scheduled to be performed.

(B) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the Director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-264-1084(f)(3)(iii)(C).

(C) When a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Director as soon as possible, but no later than 7 calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Director at least 7 calendar days before refilling the tank.

(4) Safety devices, as defined in 40 CFR 265.1081, which is adopted by reference, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-264-1084(f).

(g) The owner or operator who controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in Subsections R315-264-1084(g)(1) through (g)(3).

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-264-1087.

(2) Whenever a hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of a tank.

(ii) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in Section R315-264-1087.

(iii) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to Section R315-264-1084. Thereafter, the owner or operator shall perform the inspections at least once every year

except for the special conditions provided for in Subsection R315-264-1084(l).

(iv) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1084(k).

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(b).

(h) The owner or operator who controls air pollutant emissions by using a pressure tank shall meet the following requirements.

(1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(2) All tank openings shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Subsection R315-264-1083(d).

(3) Whenever a hazardous waste is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except under either or the following conditions as specified in Subsections R315-264-1084(h)(3)(i) or (h)(3)(ii).

(i) At those times when opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is required to avoid an unsafe condition.

(ii) At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section R315-264-1087.

(i) The owner or operator who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in Subsections R315-264-1084(i)(1) through (i)(4).

(1) The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(2) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section R315-264-1087.

(3) Safety devices, as defined in 40 CFR 265.1081, which is adopted by reference, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of Subsections R315-264-1084(i)(1) and (i)(2).

(4) The owner or operator shall inspect and monitor the closed-vent system and control device as specified in Section R315-264-1087.

(j) The owner or operator shall transfer hazardous waste to a tank subject to Section R315-264-1084 in accordance with the following requirements:

(1) Transfer of hazardous waste, except as provided in Subsection R315-264-1084(j)(2), to the tank from another tank subject to Section R315-264-1084 or from a surface impoundment subject to Section R315-264-1085 shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of Subsection R307-214-2(29), which incorporates 40 CFR part 63, subpart RR-National Emission Standards for Individual Drain Systems.

(2) The requirements of Subsection R315-264-1084(j)(1) do not apply when transferring a hazardous waste to the tank under any of the following conditions:

(i) The hazardous waste meets the average VO concentration conditions specified in Subsection R315-264-1082(c)(1) at the point of waste origination.

(ii) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Subsection R315-264-1082(c)(2).

(iii) The hazardous waste meets the requirements of Subsection R315-264-1082(c)(4).

(k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of Subsections R315-264-1084(c)(4), (e)(3), (f)(3), or (g)(3) as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in Subsection R315-264-1084(k)(2).

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of Sections R315-264-1080 through 1090, subsequent inspection and monitoring may be performed at intervals longer than 1 year under the following special conditions:

(1) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

(i) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if

required.

(ii) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of Sections R315-264-1080 through 1090, as frequently as practicable during those times when a worker can safely access the cover.

(2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of Section R315-264-1084, only those portions of the tank cover and those connections to the tank, e.g., fill ports, access hatches, gauge wells, etc., that are located on or above the ground surface.

R315-264-1085. Standards: Surface Impoundments.

(a) The provisions of Section R315-264-1085 apply to the control of air pollutant emissions from surface impoundments for which Subsection R315-264-1082(b) references the use of Section R315-264-1085 for such air emission control.

(b) The owner or operator shall control air pollutant emissions from the surface impoundment by installing and operating either of the following:

(1) A floating membrane cover in accordance with the provisions specified in Subsection R315-264-1085(c); or

(2) A cover that is vented through a closed-vent system to a control device in accordance with the provisions specified in Subsection R315-264-1085(d).

(c) The owner or operator who controls air pollutant emissions from a surface impoundment using a floating membrane cover shall meet the requirements specified in Subsections R315-264-1085(c)(1) through (c)(3).

(1) The surface impoundment shall be equipped with a floating membrane cover designed to meet the following specifications:

(i) The floating membrane cover shall be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.

(ii) The cover shall be fabricated from a synthetic membrane material that is either:

(A) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters; or

(B) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in Subsection R315-264-1085(c)(1)(ii)(A) and chemical and physical properties that maintain the material integrity for the intended service life of the material.

(iii) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.

(iv) Except as provided for in Subsection R315-264-1085(c)(1)(v), each opening in the floating membrane cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

(v) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal.

(vi) The closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

(2) Whenever a hazardous waste is in the surface impoundment, the floating membrane cover shall float on the liquid and each closure device shall be secured in the closed position except as follows:

(i) Opening of closure devices or removal of the cover is allowed at the following times:

(A) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.

(B) To remove accumulated sludge or other residues from the bottom of surface impoundment.

(ii) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect the floating membrane cover in accordance with the following procedures:

(i) The floating membrane cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to Section R315-264-1085. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-264-1085(g).

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1085(f).

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(c).

(d) The owner or operator who controls air pollutant emissions from a surface impoundment using a cover vented to a control device shall meet the requirements specified in Subsections R315-264-1085(d)(1) through (d)(3).

(1) The surface impoundment shall be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The cover and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.

(ii) Each opening in the cover not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions using the procedure specified in Subsection R315-264-1083(d).

(iii) The cover and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the cover and closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-264-1087.

(2) Whenever a hazardous waste is in the surface impoundment, the cover shall be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:

(A) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.

(B) To remove accumulated sludge or other residues from the bottom of the surface impoundment.

(ii) Opening of a safety device, as defined in 40 CFR 265.1081, which is adopted by reference, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

(i) The surface impoundment cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in Section R315-264-1087.

(iii) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to Section R315-264-1085. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-264-1085(g).

(iv) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1085(f).

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-264-1089(c).

(e) The owner or operator shall transfer hazardous waste to a surface impoundment subject to Section R315-264-1085 in accordance with the following requirements:

(1) Transfer of hazardous waste, except as provided in Subsection R315-264-1085(e)(2), to the surface impoundment from another surface impoundment subject to Section R315-264-1085 or from a tank subject to Section R315-264-1084 shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of Subsection R307-214-2(29), which incorporates 40 CFR part 63, subpart RR-National Emission Standards for Individual Drain Systems.

(2) The requirements of Subsection R315-264-1085(e)(1) do not apply when transferring a hazardous waste to the surface impoundment under either of the following conditions:

(i) The hazardous waste meets the average VO concentration conditions specified in Subsection R315-264-1082(c)(1) at the point of waste origination.

(ii) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Subsection R315-264-1082(c)(2).

(iii) The hazardous waste meets the requirements of Subsection R315-264-1082(c)(4).

(f) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of Subsections R315-264-1085(c)(3) or (d)(3) as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in Subsection R315-264-1085(f)(2).

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the surface impoundment stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(g) Following the initial inspection and monitoring of the cover as required by the applicable provisions of Sections R315-264-1080 through 1090, subsequent inspection and monitoring may be performed at intervals longer than 1 year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

(1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

(2) Develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable section of Sections R315-264-1080 through 1090 as frequently as practicable during those times when a worker can safely access the cover.

R315-264-1086. Standards: Containers.

(a) The provisions of Section R315-264-1086 apply to the control of air pollutant emissions from containers for which Subsection R315-264-1082(b) references the use of Section R315-264-1086 for such air emission control.

(b) General requirements.

(1) The owner or operator shall control air pollutant emissions from each container subject to Section R315-264-1086 in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in Subsection R315-264-1086(b)(2) apply to the container.

(i) For a container having a design capacity greater than 0.1 cubic meters and less than or equal to 0.46 cubic meters, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-264-1086(c).

(ii) For a container having a design capacity greater than 0.46 cubic meters that is not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-264-1086(c).

(iii) For a container having a design capacity greater than 0.46 cubic meters that is in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in Subsection R315-264-1086(d).

(2) When a container having a design capacity greater than 0.1 cubic meters is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in Subsection R315-264-1086(e) at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.

(c) Container Level 1 standards.

(1) A container using Container Level 1 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in Subsection R315-264-1086(f).

(ii) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container, e.g., a lid on a drum or a suitably secured tarp on a roll-off box, or may be an integral part of the container structural design, e.g., a "portable tank" or bulk cargo container equipped with a screw-type cap.

(iii) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(2) A container used to meet the requirements of Subsections R315-264-1086(c)(1)(ii) or (c)(1)(iii) shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity, for as long as the container is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

(3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall

promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-264-1086, an empty container as defined in Subsection R315-261-7(b) may be open to the atmosphere at any time, i.e., covers and closure devices are not required to be secured in the closed position on an empty container.

(B) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in Subsection R315-261-7(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in Section R315-265-1081 is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The owner or operator of containers using Container Level 1 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, i.e., does not meet the conditions for an empty container as specified in Subsection R315-261-7(b), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility, i.e., the date the container becomes subject to container standards of Sections R315-264-1080 through 1090. For purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, EPA Forms 8700-22 and 8700-22A, as required under Section R315-264-71. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1086(c)(4)(iii).

(ii) In the case when a container used for managing hazardous waste remains at the facility for a period of 1 year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1086(c)(4)(iii).

(iii) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.

(5) The owner or operator shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 cubic meters or greater, which do not meet applicable DOT regulations as specified in Subsection R315-264-1086(f), are not managing hazardous waste in light material service.

(d) Container Level 2 standards.

(1) A container using Container Level 2 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in Subsection R315-264-1086(f).

(ii) A container that operates with no detectable organic emissions as defined in Section R315-265-1081 and determined in accordance with the procedure specified in Subsection R315-264-1086(g).

(iii) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR part 60, appendix A, Method 27 in accordance with the procedure specified in Subsection R315-264-1086(h).

(2) Transfer of hazardous waste in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-264-1086(d) include using any one of the following: A submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

(3) Whenever a hazardous waste is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:

(A) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-264-1086, an empty container as defined in Subsection R315-261-7(b) may be open to the atmosphere at any time, i.e., covers and closure devices are not required to be secured in the closed position on an empty container.

(B) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in Subsection R315-261-7(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in Section R315-265-1081 is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The owner or operator of containers using Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:

(i) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, i.e., does not meet the conditions for an empty container as specified in Subsection R35- 261-7(b), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility, i.e., the date the container becomes subject to the container standards of Sections R315-264-1080 through 1090. For purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, EPA Forms 8700-22 and 8700-22A, as required under Section R315-264-71. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1086(d)(4)(iii).

(ii) In the case when a container used for managing hazardous waste remains at the facility for a period of 1 year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices

are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-264-1086(d)(4)(iii).

(iii) When a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.

(e) Container Level 3 standards.

(1) A container using Container Level 3 controls is one of the following:

(i) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of Subsection R315-264-1086(e)(2)(ii).

(ii) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of Subsections R315-264-1086(e)(2)(i) and (e)(2)(ii).

(2) The owner or operator shall meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:

(i) The container enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-264-1087.

(3) Safety devices, as defined in Section R315-265-1081 may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of Subsection R315-264-1086(e)(1).

(4) Owners and operators using Container Level 3 controls in accordance with the provisions of Sections R315-264-1086 through 1090 shall inspect and monitor the closed-vent systems and control devices as specified in Subsection R315-264-1087.

(5) Owners and operators that use Container Level 3 controls in accordance with the provisions of Sections R315-264-1086 through 1090 shall prepare and maintain the records specified in Subsection R315-264-1089(d).

(6) Transfer of hazardous waste in or out of a container using Container Level 3 controls shall be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-264-1086(e) include using any one of the following: A submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

(f) For the purpose of compliance with Subsection R315-264-1086(c)(1)(i) or (d)(1)(i), containers shall be used that meet the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178-Specifications for Packaging or 49 CFR part 179-Specifications for Tank Cars.

(2) Hazardous waste is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107, subpart B-Exemptions; 49 CFR part 172-Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173-Shippers-General Requirements for Shipments and Packages; and 49 CFR part 180-Continuing Qualification and Maintenance of Packagings.

(3) For the purpose of complying with Sections R315-264-1086 through 1090, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in Subsection R315-264-1086(f)(4).

(4) For a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with Sections R315-264-1086 through 1090, an owner or operator may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b).

(g) To determine compliance with the no detectable organic emissions requirement of Subsection R315-264-1086(d)(1)(ii), the procedure specified in Subsection R315-264-1083(d) shall be used.

(1) Each potential leak interface, i.e., a location where organic vapor leakage could occur, on the container, its cover, and associated closure devices, as applicable to the container, shall be checked. Potential leak interfaces that are associated with containers include, but are not limited to: The interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices shall be secured in the closed position.

(h) Procedure for determining a container to be vapor-tight using Method 27 of 40 CFR part 60, appendix A for the purpose of complying with Subsection R315-264-1086(d)(1)(iii).

(1) The test shall be performed in accordance with Method 27 of 40 CFR part 60, appendix A of this chapter.

(2) A pressure measurement device shall be used that has a precision of +/- 2.5 mm water and that is capable of measuring above

the pressure at which the container is to be tested for vapor tightness.

(3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

R315-264-1087. Standards: Closed-Vent Systems and Control Devices.

(a) Section R315-264-1087 applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of Sections R315-264-1080 through 1090.

(b) The closed-vent system shall meet the following requirements:

(1) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in Subsection R315-264-1087(c).

(2) The closed-vent system shall be designed and operated in accordance with the requirements specified in Subsection R315-264-1033(k).

(3) In the case when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in Subsection R315-264-1087(b)(3)(i) or a seal or locking device as specified in Subsection R315-264-1087(b)(3)(ii). For the purpose of complying with Subsection R315-264-1087(b), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

(i) If a flow indicator is used to comply with Subsection R315-264-1087(b)(3), the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For Subsection R315-264-1087(b), a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.

(ii) If a seal or locking device is used to comply with Subsection R315-264-1087(b)(3), the device shall be placed on the mechanism by which the bypass device position is controlled, e.g., valve handle, damper lever, when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

(4) The closed-vent system shall be inspected and monitored by the owner or operator in accordance with the procedure specified in Subsection R315-264-1033(l).

(c) The control device shall meet the following requirements:

(1) The control device shall be one of the following devices:

(i) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;

(ii) An enclosed combustion device designed and operated in accordance with the requirements of Subsection R315-264-1033(c); or

(iii) A flare designed and operated in accordance with the requirements of Subsection R315-264-1033(d).

(2) The owner or operator who elects to use a closed-vent system and control device to comply with the requirements of Section R315-264-1087 shall comply with the requirements specified in Subsections R315-264-1087(c)(2)(i) through (c)(2)(vi).

(i) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable, shall not exceed 240 hours per year.

(ii) The specifications and requirements in Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), and (c)(1)(iii) for control devices do not apply during periods of planned routine maintenance.

(iii) The specifications and requirements in Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), and (c)(1)(iii) for control devices do not apply during a control device system malfunction.

(iv) The owner or operator shall demonstrate compliance with the requirements of Subsection R315-264-1087(c)(2)(i), i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable, shall not exceed 240 hours per year, by recording the information specified in Subsection R315-264-1089(e)(1)(v).

(v) The owner or operator shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

(vi) The owner or operator shall operate the closed-vent system such that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction, i.e., periods when the control device is not operating or not operating normally, except in cases when it is necessary to vent the gases, vapors, and/or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

(3) The owner or operator using a carbon adsorption system to comply with Subsection R315-264-1087(c)(1) shall operate and maintain the control device in accordance with the following requirements:

(i) Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of Subsections R315-264-1033(g) or 1033(h).

(ii) All carbon that is a hazardous waste and that is removed from the control device shall be managed in accordance with the requirements of Subsection R315-264-1033(n), regardless of the average volatile organic concentration of the carbon.

(4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with Subsection R315-264-1087(c)(1) shall operate and maintain the control device in accordance with the requirements of Subsection R315-264-1033(j).

(5) The owner or operator shall demonstrate that a control device achieves the performance requirements of Subsection R315-264-1087(c)(1) as follows:

(i) An owner or operator shall demonstrate using either a performance test as specified in Subsection R315-264-1087(c)(5)(iii) or a design analysis as specified in Subsection R315-264-1087(c)(5)(iv) the performance of each control device except for the following:

(A) A flare;

(B) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

(C) A boiler or process heater into which the vent stream is introduced with the primary fuel;

(D) A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under Rule R315-270 and has designed and operates the unit in accordance with the requirements of Sections R315-266-100 through 112; or

(E) A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of Sections R315-266-100 through 112.

(ii) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in Subsection R315-264-1033(e).

(iii) For a performance test conducted to meet the requirements of Subsection R315-264-1087(c)(5)(i), the owner or operator shall use the test methods and procedures specified in Subsections R315-264-1034(c)(1) through (c)(4).

(iv) For a design analysis conducted to meet the requirements of Subsection R315-264-1087(c)(5)(i), the design analysis shall meet the requirements specified in Subsection R315-264-1035(b)(4)(iii).

(v) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of Subsection R315-264-1087(c)(1) based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

(6) If the owner or operator and the Director do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of Subsection R315-264-1087(c)(5)(iii). The Director may choose to have an authorized representative observe the performance test.

(7) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in Subsections R315-264-1033(f)(2) and 1033(l). The readings from each monitoring device required by Subsection R315-264-1033(f)(2) shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures shall be immediately implemented to ensure the control device is operated in compliance with the requirements of Section R315-264-1087.

R315-264-1088. Inspection and Monitoring Requirements.

(a) The owner or operator shall inspect and monitor air emission control equipment used to comply with Sections R315-264-1080 through 1090 in accordance with the applicable requirements specified in Sections R315-264-1084 through 1087.

(b) The owner or operator shall develop and implement a written plan and schedule to perform the inspections and monitoring required by Subsection R315-264-1088(a). The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under Section R315-264-15.

R315-264-1089. Recordkeeping Requirements.

(a) Each owner or operator of a facility subject to requirements of Sections R315-264-1080 through 1090 shall record and maintain the information specified in Subsections R315-264-1089(b) through (j), as applicable to the facility. Except for air emission control equipment design documentation and information required by Subsections R315-264-1089(i) and (j), records required by Section R315-264-1089 shall be maintained in the operating record for a minimum of 3 years. Air emission control equipment design documentation shall be maintained in the operating record until the air emission control equipment is replaced or otherwise no longer in service. Information required by Subsections R315-264-1089(i) and (j) shall be maintained in the operating record for as long as the waste management unit is not using air emission controls specified in Sections R315-264-1084 through 1087 in accordance with the conditions specified in Subsection R315-264-1080(d) or 1080(b)(7), respectively.

(b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section R315-264-1084 shall prepare and maintain records for the tank that include the following information:

(1) For each tank using air emission controls in accordance with the requirements of Subsection R315-264-1084, the owner or operator shall record:

(i) A tank identification number, or other unique identification description as selected by the owner or operator.

(ii) A record for each inspection required by Section R315-264-1084 that includes the following information:

(A) Date inspection was conducted.

(B) For each defect detected during the inspection: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the requirements of Section R315-264-1084, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(2) In addition to the information required by Subsection R315-264-1089(b)(1), the owner or operator shall record the following information, as applicable to the tank:

(i) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Subsection R315-264-1084(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Subsection R315-264-1084(c). The records shall include the date and time the

samples were collected, the analysis method used, and the analysis results.

(ii) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-264-1084(e) shall prepare and maintain documentation describing the floating roof design.

(iii) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-264-1084(f) shall prepare and maintain the following records:

(A) Documentation describing the floating roof design and the dimensions of the tank.

(B) Records for each seal gap inspection required by Subsection R315-264-1084(f)(3) describing the results of the seal gap measurements. The records shall include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Subsection R315-264-1084(f)(1), the records shall include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

(iv) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Subsection R315-264-1084(i) shall prepare and maintain the following records:

(A) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T---Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

(B) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-264-1089(e).

(c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section R315-264-1085 shall prepare and maintain records for the surface impoundment that include the following information:

(1) A surface impoundment identification number, or other unique identification description as selected by the owner or operator.

(2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Subsection R315-264-1085(c).

(3) A record for each inspection required by Section R315-264-1085 that includes the following information:

(i) Date inspection was conducted.

(ii) For each defect detected during the inspection the following information: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Subsection R315-264-1085(f), the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator shall prepare and maintain the records specified in Subsection R315-264-1089(e).

(d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section R315-264-1086 shall prepare and maintain records that include the following information:

(1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

(2) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-264-1089(e).

(e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section R315-264-1087 shall prepare and maintain records that include the following information:

(1) Documentation for the closed-vent system and control device that includes:

(i) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in Subsection R315-264-1089(e)(1)(ii) or by performance tests as specified in Subsection R315-264-1089(e)(1)(iii) when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.

(ii) If a design analysis is used, then design documentation as specified in Subsection R315-264-1035(b)(4). The documentation shall include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsection R315-264-1035(b)(4)(iii) and certification by the owner or operator that the control equipment meets the applicable specifications.

(iii) If performance tests are used, then a performance test plan as specified in Subsection R315-264-1035(b)(3) and all test results.

(iv) Information as required by Subsection R315-264-1035(c)(1) and Subsection R315-264-1035(c)(2), as applicable.

(v) An owner or operator shall record, on a semiannual basis, the information specified in Subsections R315-264-1089(e)(1)(v)(A) and (e)(1)(v)(B) for those planned routine maintenance operations that would require the control device not to meet the requirements of Subsections R315-264-1087(c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6-month period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6-month period. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of Subsections R315-264-1087 (c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable, due to planned

routine maintenance.

(vi) An owner or operator shall record the information specified in Subsections R315-264-1089(e)(1)(vi)(A) through (e)(1)(vi)(C) for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Subsections R315-264-1087 (c)(1)(i), (c)(1)(ii), or (c)(1)(iii), as applicable.

(A) The occurrence and duration of each malfunction of the control device system.

(B) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.

(C) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

(vii) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Subsection R315-264-1087(c)(3)(ii).

(f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Subsection R315-264-1082(c) shall prepare and maintain the following records, as applicable:

(1) For tanks, surface impoundments, and containers exempted under the hazardous waste organic concentration conditions specified in Subsections R315-264-1082(c)(1) or 1082(c)(2)(i) through (c)(2)(vi), the owner or operator shall record the information used for each waste determination, e.g., test results, measurements, calculations, and other documentation, in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of Section R315-264-1083.

(2) For tanks, surface impoundments, or containers exempted under the provisions of Subsections R315-264-1082(c)(2)(vii) or (c)(2)(viii), the owner or operator shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

(g) An owner or operator designating a cover as "unsafe to inspect and monitor" pursuant to Subsections R315-264-1084(l) or 1085(g) shall record in a log that is kept in the facility operating record the following information: The identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor," the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

(h) The owner or operator of a facility that is subject to Section R315-264-1080 through 1090 and to the control device standards in 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, may elect to demonstrate compliance with the applicable sections of Section R315-264-1080 through 1090 by documentation either pursuant to Section R315-264-1080 through 1090, or pursuant to the provisions of 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR parts 60 or 61 duplicates the documentation required by Section R315-264-1089.

(i) For each tank or container not using air emission controls specified in Sections R315-264-1084 through 1087 in accordance with the conditions specified in Subsection R315-264-1080(d), the owner or operator shall record and maintain the following information:

(1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Subsection R315-264-1080(d)(1).

(2) A description of how the hazardous waste containing the organic peroxide compounds identified in Subsection R315-264-1089(i)(1) are managed at the facility in tanks and containers. This description shall include:

(i) For the tanks used at the facility to manage this hazardous waste, sufficient information shall be provided to describe for each tank: A facility identification number for the tank; the purpose and placement of this tank in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste managed in the tanks.

(ii) For containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to describe: A facility identification number for the container or group of containers; the purpose and placement of this container, or group of containers, in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste handled in the containers.

(3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified in Subsection R315-264-1089(i)(1) in the tanks and containers as described in Subsection R315-264-1089(i)(2) would create an undue safety hazard if the air emission controls, as required under Sections R315-264-1084 through 1087, are installed and operated on these waste management units. This explanation shall include the following information:

(i) For tanks used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain: How use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under Section R315-264-1080 through 1090, will not address those situations in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

(ii) For containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain: How use of the required air emission controls on the containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under Section R315-264-1080 through 1090, will not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

(j) For each hazardous waste management unit not using air emission controls specified in Sections R315-264-1084 through 1087 in accordance with the requirements of Subsection R315-264-1080(b)(7), the owner and operator shall record and maintain the following information:

(1) Certification that the waste management unit is equipped with and operating air emission controls in accordance with the requirements of an applicable regulation codified under the Utah Air Conservation Act.

(2) Identification of the specific requirements codified under the Utah Air Conservation Act with which the waste management unit is in compliance.

R315-264-1090. Reporting Requirements.

(a) Each owner or operator managing hazardous waste in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of Subsection R315-264-1082(c) shall report to the Director each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the conditions specified in Subsection R315-264-1082(c)(1) or (c)(2), as applicable. Examples of such occurrences include placing in the waste management unit a hazardous waste having an average VO concentration equal to or greater than 500 ppmw at the point of waste origination; or placing in the waste management unit a treated hazardous waste of which the organic content has been reduced by an organic destruction or removal process that fails to achieve the applicable conditions specified in Subsections R315-264-1082(c)(2)(i) through (c)(2)(vi). The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

(b) Each owner or operator using air emission controls on a tank in accordance with the requirements Subsection R315-264-1084(c) shall report to the Director each occurrence when hazardous waste is managed in the tank in noncompliance with the conditions specified in Subsection R315-264-1084(b). The owner or operator shall submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

(c) Each owner or operator using a control device in accordance with the requirements of Section R315-264-1087 shall submit a semiannual written report to the Director excepted as provided for in Subsection R315-264-1090(d). The report shall describe each occurrence during the previous 6-month period when either:

(1) A control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in Subsection R315-264-1035(c)(4); or

(2) A flare is operated with visible emissions for 5 minutes or longer in a two-hour period, as defined in Subsection R315-264-1033(d). The written report shall include the EPA identification number, facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance. The report shall be signed and dated by an authorized representative of the owner or operator.

(d) A report to the Director in accordance with the requirements of Subsection R315-264-1090(c) is not required for a 6-month period during which all control devices subject to Section R316-264-1080 through 1090 are operated by the owner or operator such that:

(1) During no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in Subsection R315-264-1035(c)(4); and

(2) No flare was operated with visible emissions for 5 minutes or longer in a two-hour period, as defined in Subsection R315-264-1033(d).

R315-264-1100. Containment Buildings -- Applicability.

The requirements of Sections R315-264-1100 through 1102 apply to owners or operators who store or treat hazardous waste in units designed and operated under Section R315-264-1101. The owner or operator is not subject to the definition of land disposal in RCRA section 3004(k) provided that the unit:

(a) Is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

(b) Has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling equipment within the unit;

(c) If the unit is used to manage liquids, has:

(1) A primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

(2) A liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and

(3) A secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time, unless the unit has been granted a variance from the secondary containment system requirements under Subsection R315-264-1101(b)(4);

(d) Has controls sufficient to prevent fugitive dust emissions to meet the no visible emission standard in Subsection R315-264-1101(c)(1)(iv); and

(e) Is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.

R315-264-1101. Containment Buildings -- Design and Operating Standards.

(a) All containment buildings shall comply with the following design standards:

(1) The containment building shall be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, e.g., precipitation, wind, run-on, and to assure containment of managed wastes.

(2) The floor and containment walls of the unit, including the secondary containment system if required under Subsection R315-264-1101(b), shall be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit shall be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes shall be chemically compatible with those wastes. the Director shall consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of Subsection R315-264-1101(a). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

(i) They provide an effective barrier against fugitive dust emissions under Subsection R315-264-1101(c)(1)(iv); and

(ii) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

(3) Incompatible hazardous wastes or treatment reagents shall not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

(4) A containment building shall have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids, the presence of which is determined by the paint filter test, a visual examination, or other appropriate means, the owner or operator shall include:

(1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier, e.g., a geomembrane covered by a concrete wear surface.

(2) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building:

(i) The primary barrier shall be sloped to drain liquids to the associated collection system; and

(ii) Liquids and waste shall be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.

(3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

(i) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum:

(A) Constructed with a bottom slope of 1 percent or more; and

(B) Constructed of a granular drainage material with a hydraulic conductivity of 1 x 10-2 cm/sec or more and a thickness of 30.5 cm (12 inches) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3 x 10-5 m2/sec or more.

(ii) If treatment is to be conducted in the building, an area in which such treatment will be conducted shall be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

(iii) The secondary containment system shall be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of Subsection R315-264-193(e)(1). In addition, the containment building shall meet the requirements of Subsections R315-264-193(b) and 193(c)(1) and (2) to be considered an acceptable secondary containment system for a tank.

(4) For existing units other than 90-day generator units, the Director may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of Sections R315-264-1100 and 1102. In making this demonstration, the owner or operator shall:

(i) Provide written notice to the Director of their request by November 16, 1992. This notification shall describe the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment;

(ii) Respond to any comments from the Director on these plans within 30 days; and

(iii) Fulfill the terms of the revised plans, if such plans are approved by the Director.

(c) Owners or operators of all containment buildings shall:

(1) Use controls and practices to ensure containment of the hazardous waste within the unit; and, at a minimum:

(i) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

(ii) Maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

(iii) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area shall be designated to decontaminate equipment and any rinsate shall be collected and properly managed; and

(iv) Take measures to control fugitive dust emissions such that any openings, doors, windows, vents, cracks, etc., exhibit no visible emissions, see 40 CFR part 60, appendix A, Method 22-Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares. In addition, all associated particulate collection devices, e.g., fabric filter, electrostatic precipitator, shall be operated and maintained with sound air pollution control practices, see 40 CFR part 60 subpart 292 for guidance. This state of no visible emissions shall be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

(2) Obtain and keep on-site a certification by a qualified Professional Engineer that the containment building design meets the requirements of Subsections R315-264-1101(a), (b), and (c).

(3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, the owner or operator shall repair the condition promptly, in accordance with the following procedures.

(i) Upon detection of a condition that has led to a release of hazardous waste, e.g., upon detection of leakage from the primary barrier, the owner or operator shall:

(A) Enter a record of the discovery in the facility operating record;

(B) Immediately remove the portion of the containment building affected by the condition from service;

(C) Determine what steps shall be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

(D) Within 7 days after the discovery of the condition, notify the Director of the condition, and within 14 working days, provide a written notice to the Director with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

(ii) The Director shall review the information submitted, make a determination regarding whether the containment building shall be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

(iii) Upon completing all repairs and cleanup the owner or operator shall notify the Director in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with Subsection R315-264-1101(c)(3)(i)(D).

(4) Inspect and record in the facility operating record, at least once every seven days, data gathered from monitoring and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(d) For a containment building that contains both areas with and without secondary containment, the owner or operator shall:

(1) Design and operate each area in accordance with the requirements enumerated in Subsections R315-264-1101(a) through (c);

(2) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

(3) Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

(e) Notwithstanding any other provision of Subsection R315-264-1100 through 1102 the Director may waive requirements for secondary containment for a permitted containment building where the owner operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

R315-264-1102. Closure and Post-Closure Care.

(a) At closure of a containment building, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, liners, etc.; contaminated subsoils; and structures and equipment contaminated with waste and leachate; and manage them as hazardous waste unless Subsection R315-261-3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings shall meet all of the requirements specified in Sections R315-264-110 through 120 and 140 through 151.

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-264-1102(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills, Section R315-264-310. In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator shall meet all of the requirements for landfills specified in Sections R315-264-110 through 120 and 140 through 151.

R315-264-1103. Appendix I to Rule R315-264 -- Recordkeeping Instructions.

The recordkeeping provisions of Section R315-264-73 specify that an owner or operator shall keep a written operating record at his facility. This appendix provides additional instructions for keeping portions of the operating record. See Subsection R315-264-73(b) for additional recordkeeping requirements.

The following information shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility in the following manner:

Records of each hazardous waste received, treated, stored, or disposed of at the facility which include the following:

(1) A description by its common name and the EPA Hazardous Waste Number(s) from Rule R315-261 which apply to the waste.

The waste description also shall include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in Sections R315-261-30 through 35, the description also shall include the process that produced it, for example, solid filter cake from production of ----, EPA Hazardous Waste Number W051.

Each hazardous waste listed in Sections R315-261-30 through 35, and each hazardous waste characteristic defined in Sections R315-261-20 through 24, has a four-digit EPA Hazardous Waste Number assigned to it. This number shall be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description shall include all applicable EPA Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1;

Table 1

Unit of measure	Code(1)
Gallons	G
Gallons per Hour	E
Gallons per Day	U
Liters	L
Liters per Hour	H
Liters per Day	V
Short Tons per Hour	D
Metric Tons per Hour	W
Short Tons per Day	N
Metric Tons per Day	S
Pounds per Hour	J
Kilograms per Hour	R
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu's per Hour	I
Pounds	P
Short tons	T
Kilograms	K
Tons	M

(1) Single digit symbols are used here for data processing purposes.

(3) The method(s), by handling code(s) as specified in Table 2, and date(s) of treatment, storage, or disposal.

Table 2
Handling Codes for Treatment, Storage and Disposal Methods

Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store or dispose of each quantity of hazardous waste received.

For Storage

Code	Storage type
S01	Container (barrel, drum, etc.)
S02	Tank
S03	Waste Pile
S04	Surface Impoundment
S05	Drip Pad
S06	Containment Building (Storage)
S99	Other Storage (specify)

For Treatment

(a) Thermal Treatment-

Code	Type of Thermal Treatment
T06	Liquid injection incinerator
T07	Rotary kiln incinerator
T08	Fluidized bed incinerator
T09	Multiple hearth incinerator
T10	Infrared furnace incinerator
T11	Molten salt destructor
T12	Pyrolysis
T13	Wet air oxidation
T14	CalcinationT15 Microwave discharge
T18	Other (specify)

(b) Chemical Treatment-

Code	Type of Chemical Treatment
T19	Absorption mound
T20	Absorption field
T21	Chemical fixation

T22 Chemical oxidation
T23 Chemical precipitation
T24 Chemical reduction
T25 Chlorination
T26 Chlorinolysis
T27 Cyanide destruction
T28 Degradation
T29 Detoxification
T30 Ion exchange
T31 Neutralization
T32 Ozonation
T33 Photolysis
T34 Other (specify)

(c) Physical Treatment-
(1) Separation of components:

Code	Type of Separation treatmen
T35	Centrifugation
T36	Clarification
T37	Coagulation
T38	Decanting
T39	Encapsulation
T40	Filtration
T41	Flocculation
T42	Flotation
T43	Foaming
T44	Sedimentation
T45	Thickening
T46	Ultrafiltration
T47	Other (specify)

(2) Removal of Specific Components:

Code	Type of Removal Treatment
T48	Absorption-molecular sieve
T49	Activated carbon
T50	Blending
T51	Catalysis
T52	Crystallization
T53	Dialysis
T54	Distillation
T55	Electrodialysis
T56	Electrolysis
T57	Evaporation
T58	High gradient magnetic separation
T59	Leaching
T60	Liquid ion exchange
T61	Liquid-liquid extraction
T62	Reverse osmosis
T63	Solvent recovery
T64	Stripping
T65	Sand filter
T66	Other (specify)

(d) Biological Treatment

Code	Type of Biological Treatment
T67	Activated sludge
T68	Aerobic lagoon
T69	Aerobic tank
T70	Anaerobic tank
T71	Composting
T72	Septic tank
T73	Spray irrigation
T74	Thickening filter
T75	Trickling filter
T76	Waste stabilization pond
T77	Other (specify)

(e) Boilers and Industrial Furnaces

Code	Type of Boiler or Industrial Furnace
T80	BoilerT81 Cement Kiln
T82	Lime Kiln
T83	Aggregate Kiln
T84	Phosphate Kiln
T85	Coke Oven
T86	Blast Furnace
T87	Smelting, Melting, or Refining Furnace
T88	Titanium Dioxide Chloride Process Oxidation Reactor
T89	Methane Reforming Furnace
T90	Pulping Liquor Recovery Furnace
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid
T92	Halogen Acid Furnaces
T93	Other Industrial Furnaces Listed in Section R315-260.10 (specify)

(f) Other Treatment
Code Other type of Treatment
T94 Containment Building (Treatment)

For Disposal
Code Type of Disposal
D79 Underground Injection
D80 Landfill
D81 Land Treatment
D82 Ocean Disposal
D83 Surface Impoundment (to be closed as a landfill)
D99 Other Disposal (specify)

For Miscellaneous Sections R315-264-600 through 603 Units
Code Unit type
X01 Open Burning/Open Detonation
X02 Mechanical Processing
X03 Thermal Unit
X04 Geologic Repository
X99 Other Sections R315-264-600 through 603 Units
(specify)

R315-264-1104. Appendix IV to Rule R315-264-Cochran's Approximation to the Behrens-Fisher Students' t-test.

40 CFR 264 Appendix IV, 2015 edition, is adopted and incorporated by reference.

R315-264-1105. Appendix V to Rule R315-264 -- Examples of Potentially Incompatible Waste.

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator shall, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction, e.g., adding acid to water rather than water to acid, or that neutralizes them, e.g., a strong acid mixed with a strong base, or that controls substances produced, e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator.

In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted.

Table

Group 1-A

Acetylene sludge
Alkaline caustic liquids
Alkaline cleaner
Alkaline corrosive liquids
Alkaline corrosive battery fluid
Caustic wastewater
Lime sludge and other corrosive alkalies
Lime wastewaterLime and water
Spent caustic

Group 1-B

Acid sludge
Acid and water
Battery acid
Chemical cleaners
Electrolyte, acid
Etching acid liquid or solvent
Pickling liquor and other corrosive acids
Spent acid
Spent mixed acid
Spent sulfuric acid
Potential consequences: Heat generation; violent reaction.

Group 2-A

Aluminum
Beryllium
Calcium
Lithium
Magnesium
Potassium
Sodium

Zinc powder
Other reactive metals and metal hydrides

Group 2-B

Any waste in Group 1-A or
1-B
Potential consequences: Fire or explosion; generation of flammable
hydrogen gas.

Group 3-A

Alcohols
Water

Group 3-B

Any concentrated waste in Groups 1-A or 1-B
Calcium
Lithium
Metal hydrides
Potassium
SO2 Cl2, SOCl2, PCl3, CH3 SiCl3
Other water-reactive waste
Potential consequences: Fire, explosion, or heat generation;
generation of flammable or toxic gases.

Group 4-A

Alcohols
Aldehydes
Halogenated hydrocarbons
Nitrated hydrocarbons
Unsaturated hydrocarbons
Other reactive organic compounds and solvents

Group 4-B

Concentrated Group 1-A or 1-B wastes
Group 2-A wastes
Potential consequences: Fire, explosion, or violent reaction.

Group 5-A

Spent cyanide and sulfide solutions

Group 5-B

Group 1-B wastes
Potential consequences: Generation of toxic hydrogen cyanide or
hydrogen sulfide gas.

Group 6-A

Chlorates
Chlorine
Chlorites
Chromic acid
Hypochlorites
Nitrates
Nitric acid, fuming
Perchlorates
Permanganates
Peroxides
Other strong oxidizers

Group 6-B

Acetic acid and other organic acids
Concentrated mineral acids
Group 2-A wastes
Group 4-A wastes
Other flammable and combustible wastes
Potential consequences: Fire, explosion, or violent reaction.
Source: "Law, Regulations, and Guidelines for Handling of Hazardous
Waste." California Department of Health, February 1975.

(1) These include counties, city-county consolidations, and
independent cities. In the case of Alaska, the political
jurisdictions are election districts, and, in the case of Hawaii,
the political jurisdiction listed is the island of Hawaii.

R315-264-1106. Appendix VI to Rule R315-264 -- Political Jurisdictions within Utah in Which Compliance With Subsection R315-

264-18(a) Shall Be Demonstrated.

Beaver
Box Elder
Cache
Carbon
Daggett
Davis
Duchesne
Emery
Garfield
Grand
Iron
Juab
Kane
Millard
Morgan
Piute
Rich
Salt Lake
San Juan
Sanpete
Sevier
Summit
Tooele
Uintah
Utah
Wasatch
Washington
Wayne
Weber

R315-264-1107. Appendix IX to Rule R315-264 -- Ground-Water Monitoring List.

40 CFR 264 Appendix IX, 2015 edition, is adopted and incorporated by reference.

KEY: hazardous waste, TSD facilities
Date of Last Change: May 16, 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-265**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-265. Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments have been received since the last five-year review of this rule.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
Rule R315-265 establishes the minimum standards that define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled. These standards are required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315-265-1. Incorporation, General -- Purpose, Scope, and Applicability.

40 CFR 265.270 through 265.282, 265.370 through 265.383, 265.400 through 265.406, 265.430, 265.1200 through 265.1202, 265.1300 through 265.1316 and Appendices I and III through IV and VI of 40 CFR 265, 2024 edition, are incorporated by reference except that "director" is substituted for references to "Regional Administrator", and for references to "EPA" or "Environmental Protection Agency" except for references to "EPA identification number" and when EPA is used in reference to actions under Subsection R315-268-42(b) and in Subsection R315-265-71(a)(3).

(a) The purpose of Rule R315-265 is to establish minimum standards that define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

(b) Except as provided in Subsection R315-265-1080(b), the standards of Rule R315-265, and of Sections R315-264-552, R315-264-553, and R315-264-554, apply to owners and operators of facilities that treat, store or dispose of hazardous waste who have fully complied with the requirements for interim status under Section 3005(e) of RCRA and Section R315-270-10 until either a permit is issued under Rule R315-270 or until applicable Rule R315-265 closure and post-closure responsibilities are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980 who have failed to provide timely notification as required by Section 3010(a) of RCRA, failed to file Part A of the permit application as required by Subsections R315-270-10(e) and R315-270-10(g), or both. These standards apply to treatment, storage and disposal of hazardous waste at these facilities after the effective date of Title R315, except as specifically provided otherwise in Rule R315-265 or Rule R315-261.

(1) As stated in Section 3005(a) of RCRA, after the effective date of regulations under that section, which are Rules R315-270 and R315-124, the treatment, storage and disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility that meets certain conditions, until final administrative disposition of the owner's and operator's permit application is made.

(c) The requirements of Rule R315-265 do not apply to the following:

(1) A person disposing of hazardous waste by ocean disposal subject to a permit issued under the Marine Protection, Research, and Sanctuaries Act.

(i) Rule R315-265 does apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea, as provided in Subsection R315-265-1(b).

(2) Reserved.

(3) The owner or operator of a POTW that treats, stores, or disposes of hazardous waste.

(i) The owner or operator of a facility under Subsections R315-265-1(c)(1) through R315-265-1(c)(3) is subject to the requirements of Rule R315-264 to the extent they are included in a permit by rule granted to the owner or operator under 40 CFR 122, or are required by 40 CFR 144.14.

(4) Reserved.

(5) The owner or operator of a facility permitted under Rules R315-301 through R315-320 to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under Rule R315-265 by Section R315-262-14.

(6) The owner or operator of a facility managing recyclable materials described in Subsections R315-261-6(a)(2), R315-261-6(a)(3), and R315-261-6(a)(4), except to the extent they are referred to in Rule R315-15 or Sections R315-266-20 through R315-266-23, R315-266-70, R315-266-80, or R315-266-100 through R315-266-112.

(7) A generator accumulating waste on-site in compliance with applicable conditions for exemption in Sections R315-262-14 through R315-262-17 and Sections R315-262-200 through R315-262-216 and R315-262-230 through R315-262-233, except to the extent the requirements of Rule R315-265 are included in those sections.

(8) A farmer disposing of waste pesticides from the farmer's own use in compliance with Section R315-262-70.

(9) The owner or operator of a totally enclosed treatment facility, as defined in Section R315-260-10.

(10) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in Section R315-260-10, except that if the owner or operator is diluting hazardous ignitable (D001) wastes, other than the D001 High TOC Subcategory defined in Section R315-268-40, Table Treatment Standards for Hazardous Wastes, or reactive (D003) waste, to remove the characteristic before land disposal, the owner or operator shall comply with the requirements set out in Subsection R315-265-17(b).

(11)(i) Except as provided in Subsection R315-265-1(c)(11)(ii), a person engaged in treatment or containment activities during immediate response to any of the following situations:

(A) a discharge of a hazardous waste;

(B) an imminent and substantial threat of a discharge of a hazardous waste; or

(C) a discharge of a material that, if discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by this Rule R315-265 shall comply with the applicable requirements of Sections R315-265-30 through R315-265-37 and Sections R315-265-50 through R315-265-56.

(iii) Any person who is covered by Subsection R315-265-1(c)(11)(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to the applicable requirements of Rule R315-265 and Rule R315-124 for those activities.

(iv) In the case of an explosives or munitions emergency response, if a federal, state, tribal or local official acting within the scope of their official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA identification numbers and without the preparation of a

manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall keep records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(12) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.

(13) The addition of absorbent material to waste in a container, as defined in Section R315-260-10, or the addition of waste to the absorbent material in a container if these actions occur when waste is first placed in the containers, and Subsection R315-265-17(b) and Sections R315-265-171 and R315-265-172 are complied with.

(14) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, handling the wastes listed in Subsections R315-265-1(c)(14)(i) through R315-265-1(c)(14)(vi). These handlers are subject to regulation under Rule R315-273, if handling the following universal wastes:

(i) batteries as described in Section R315-273-2;

(ii) pesticides as described in Section R315-273-3;

(iii) mercury-containing equipment as described in Section R315-273-4;

(iv) lamps as described in Section R315-273-5;

(v) aerosol cans as described in Section R315-273-6; and

(vi) antifreeze as described in Section R315-273-7.

(15) Reserved

(16) Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in Section R315-266-500. Reverse distributors are subject to regulation under Sections R315-266-500 through R315-266-510 in lieu of Rule R315-265 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

(d) The following hazardous wastes may not be managed at facilities subject to regulation under Rule R315-265.

(1) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027 unless:

(i) the wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

(ii) the waste is stored in tanks or containers;

(iii) the waste is stored or treated in waste piles that meet the requirements of Subsection R315-264-250(c) as well as other applicable requirements of Sections R315-265-250 through R315-265-260;

(iv) the waste is burned in incinerators that are certified pursuant to the standards and procedures in Section R315-265-352; or

(v) the waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in 40 CFR 265.383, which is incorporated by reference.

(e) The requirements of Rule R315-265 apply to owners or operators of facilities that treat, store or dispose of hazardous waste referred to in Rule R315-268, and the Rule R315-268 standards are considered material conditions or requirements of the Rule R315-265 interim status standards.

R315-265-4. General -- Imminent Hazard Action.

Notwithstanding any other provisions of these regulations, enforcement actions may be brought pursuant to Section 19-5-115.

R315-265-10. General Facility Standards -- Applicability.

The regulations in Section R315-262-10 through 262-19 apply to owners and operators of all hazardous waste facilities, except as Section R315-265-1 provides otherwise.

R315-265-11. General Facility Standards -- Identification Number.

Every facility owner or operator shall apply to the Director for an EPA identification number using EPA form 8700-12. Information on obtaining this number can be acquired by contacting the Utah Division of Waste Management and Radiation Control.

R315-265-12. General Facility Standards -- Required Notices.

(a) The owner or operator of a facility that is arranging or has arranged to receive hazardous waste subject to Sections R315-262-80 through R315-262-84 from a foreign source shall submit the following required notices:

(1) As per Subsection R315-262-84(b), for imports where the competent authority of the country of export does not require the foreign exporter to submit to it a notification proposing export and get consent from EPA and the competent authorities for the countries of transit, the owner or operator of the facility, if acting as the importer, shall provide notification of the proposed transboundary movement in English to EPA using the allowable methods listed in Subsection R315-262-84(b)(1) at least 60 days before the first shipment is expected to depart the country of export. The notification may cover up to one year of shipments of wastes having similar physical and chemical characteristics, the identical United Nations classification, the identical RCRA waste codes and OECD waste codes, and being sent from the same foreign exporter.

(2) As per Subsection R315-262-84(d)(2)(xv), a copy of the movement document bearing the required signatures within three working days of receipt of the shipment to the foreign exporter, to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The original of the signed movement document shall be maintained at the facility for at least three years. The owner or

operator of a facility may satisfy this recordkeeping requirement by keeping electronically submitted documents in the facility's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, copies shall be readily available for viewing and production if requested by any EPA or Utah inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system, for which the owner or operator of a facility bears no responsibility.

(3) As per Subsection R315-262-84(f)(4), if the facility has physical control of the waste and it must be sent to an alternate facility or returned to the country of export, the owner or operator of the facility shall inform EPA, using the allowable methods listed in Subsection R315-262-84(b)(1) of the need to return or arrange alternate management of the shipment.

(4) As per Subsection R315-262-84(g), the owner or operator shall:

(i) Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system.

(ii) If the facility performed any of recovery operations R12, R13, or RC3, or disposal operations D13 through D15, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC1, or one of disposal operations D1 through D12, or DC1 to DC2, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The recovery and disposal operations in Subsection R315-265-12(a)(4)(ii) are defined in Section R315-262-81.

(b) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator shall notify the new owner or operator in writing of the requirements of Rule R315-265 and Rule R315-270. Also see Section R315-270-72.

(i) An owner's or operator's failure to notify the new owner or operator of the requirements of Rule R315-265 in no way relieves the new owner or operator of their obligation to comply with the applicable requirements.

R315-265-13. General Facility Standards -- General Waste Analysis.

(a)(1) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or nonhazardous wastes if applicable under Subsection R315-265-113(d), he shall obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis shall contain all the information which must be known to treat, store, or dispose of the waste in accordance with Rule R315-265 and Rule R315-268.

(2) The analysis may include data developed under Rule R315-261, and existing published or documented data on the hazardous waste or on waste generated from similar processes.

Comment: For example, the facility's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with Subsection R315-265-13(a)(1). The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part of the information required by Subsection R315-265-13(a)(1), except as otherwise specified in Subsections R315-268-7(b) and (c). If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with Section R315-265-13.

(3) The analysis shall be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis shall be repeated:

(i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous wastes or non-hazardous wastes, if applicable, under Subsection R315-265-113(d) has changed; and

(ii) For off-site facilities, when the results of the inspection required in Subsection R315-265-13(a)(4) indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

(4) The owner or operator of an off-site facility shall inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with Subsection R315-265-13(a). He shall keep this plan at the facility. At a minimum, the plan shall specify:

(1) The parameters for which each hazardous waste, or non-hazardous waste if applicable under Subsection R315-265-113(d), will be analyzed and the rationale for the selection of these parameters, i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with Subsection R315-265-13(a);

(2) The test methods which will be used to test for these parameters;

(3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

(i) One of the sampling methods described in Section R315-261-1090; or

(ii) An equivalent sampling method.

Comment: See Subsection R315-260-20(c) for related discussion.

(4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate

and up to date;

(5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply; and

(6) Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods as specified in Sections R315-265-200, R315-265-225, and R315-265-252, and 40 CFR 265.273, 265.314, 265.341, 265.375, 265.402, 265.1034(d), 265.1063(d), 265.1084, which are adopted and incorporated by reference and Section R315-268-7.

(7) For surface impoundments exempted from land disposal restrictions under Subsection R315-268-4(a), the procedures and schedule for:

(i) The sampling of impoundment contents;

(ii) The analysis of test data; and,

(iii) The annual removal of residues which are not delisted under Section R315-260-22 or which exhibit a characteristic of hazardous waste and either:

(A) Do not meet applicable treatment standards of Sections R315-268-40 through R315-268-49; or

(B) Where no treatment standards have been established;

(I) Such residues are prohibited from land disposal under Section R315-268-32 or RCRA section 3004(d); or

(II) Such residues are prohibited from land disposal under Subsection R315-268-33(f).

(8) For owners and operators seeking an exemption to the air emission standards of 40 CFR 265 Subpart CC, in accordance with 40 CFR 265.1083, which are adopted and incorporated by reference.

(i) If direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis, and the results of the analysis of test data to verify the exemption.

(ii) If knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator or by the generator of the hazardous waste, if the waste is received from off-site, that is used as the basis for knowledge of the waste.

(c) For off-site facilities, the waste analysis plan required in Subsection R315-265-13(b) shall also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan shall describe:

(1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

(2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

(3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

R315-265-14. General Facility Standards -- Security.

(a) The owner or operator shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless:

(1) Physical contact with the waste, structures, or equipment with the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility, and

(2) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of Rule R315-265.

(b) Unless exempt under Subsections R315-265-14(a)(1) and (2), a facility shall ha ve:

(1) A 24-hour surveillance system, for example, television monitoring or surveillance by guards or facility personnel, which continuously monitors and controls entry onto the active portion of the facility; or

(2)(i) An artificial or natural barrier, for example, a fence in good repair or a fence combined with a cliff, which completely surrounds the active portion of the facility; and

(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility, for example, an attendant, television monitors, locked entrance, or controlled roadway access to the facility.

Comment: The requirements of Subsection R315-265-14(b) are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, which complies with the requirements of Subsections R315-265-14(b)(1) or (2).

(c) Unless exempt under Subsections R315-265-14(a)(1) and (a)(2), a sign with the legend, "Danger---Unauthorized Personnel Keep Out," shall be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend shall be written in English and in any other language predominant in the area surrounding the facility, for example, facilities in counties bordering the Canadian province of Quebec shall post signs in French; facilities in counties bordering Mexico shall post signs in Spanish, and shall be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger---Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

Comment: See Subsection R315-265-117(b) for discussion of security requirements at disposal facilities during the post-closure care period.

R315-265-15. General Facility Standards -- General Inspection Requirements.

(a) The owner or operator shall inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing, or may lead to: (1) Release of hazardous waste constituents to the environment or (2) a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

(b)(1) The owner or operator shall develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment, such as dikes and sump pumps, that are important to preventing, detecting, or responding to environmental or human health hazards.

(2) He shall keep this schedule at the facility.

(3) The schedule shall identify the types of problems, for example, malfunctions or deterioration, which are to be looked for during the inspection, for example, inoperative sump pump, leaking fitting, eroding dike, etc.

(4) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, shall be inspected daily when in use. At a minimum, the inspection schedule shall include the items and frequencies called for in Sections R315-265-174, R315-265-193, R315-265-195, R315-265-226, and R315-265-260, 40 CFR 265.278, 265.304, 265.347, 265.377, 265.403, 265.1033, 265.1052, 265.1053, 265.1058, and 265.1084 through 265.1090, which are adopted and incorporated by reference, where applicable.

(c) The owner or operator shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately.

(d) The owner or operator shall record inspections in an inspection log or summary. He shall keep these records for at least three years from the date of inspection. At a minimum, these records shall include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

R315-265-16. General Facility Standards -- Personnel Training.

(a)(1) Facility personnel shall successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of Rule R315-265. The owner or operator shall ensure that this program includes all the elements described in the document required under Subsection R315-265-16(d)(3).

(2) This program shall be directed by a person trained in hazardous waste management procedures, and shall include instruction which teaches facility personnel hazardous waste management procedures, including contingency plan implementation, relevant to the positions in which they are employed.

(3) At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems;

(iv) Response to fires or explosions;

(v) Response to ground-water contamination incidents; and

(vi) Shutdown of operations.

(4) For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration (OSHA) regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the facility is not required to provide separate emergency response training pursuant to Section R315-265-16, provided that the overall facility training meets all the requirements of Section R315-265-16.

(b) Facility personnel shall successfully complete the program required in Subsection R315-265-16(a) within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations shall not work in unsupervised positions until they have completed the training requirements of Subsection R315-265-16(a).

(c) Facility personnel shall take part in an annual review of the initial training required in Subsection R315-265-16(a).

(d) The owner or operator shall maintain the following documents and records at the facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under Subsection R315-265-16(d)(1). This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but shall include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under Subsection R315-265-16(d)(1);

(4) Records that document that the training or job experience required under Subsections R315-265-16(a), (b), and (c) has been given to, and completed by, facility personnel.

(e) Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

R315-265-17. General Facility Standards -- General Requirements for Ignitable, Reactive, or Incompatible Wastes.

(a) The owner or operator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste shall be separated and protected from sources of ignition or reaction including but not limited to: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks; static, electrical, or mechanical, spontaneous ignition, for example, from heat-producing chemical reactions, and radiant heat. While ignitable or reactive waste is being handled, the owner or operator shall confine smoking and

open flame to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of Rule R315-265, the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, shall be conducted so that it does not:

(1) Generate extreme heat or pressure, fire or explosion, or violent reaction;

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(4) Damage the structural integrity of the device or facility containing the waste; or

(5) Through other like means threaten human health or the environment.

R315-265-18. General Facility Standards -- Location Standards.

The placement of any hazardous waste in a salt dome, salt bed formation, underground mine or cave is prohibited, except for the Department of Energy Waste Isolation Pilot Project in New Mexico.

R315-265-19. General Facility Standards -- Construction Quality Assurance Program.

(a) CQA program.

(1) A construction quality assurance (CQA) program is required for all surface impoundment, waste pile, and landfill units that are required to comply with Subsection R315-265-221(a), Section R315-265-254, and 40 CFR 265.301(a), which is adopted and incorporated by reference. The program shall ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program shall be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

(2) The CQA program shall address the following physical components, where applicable:

(i) Foundations;

(ii) Dikes;

(iii) Low-permeability soil liners;

(iv) Geomembranes (flexible membrane liners);

(v) Leachate collection and removal systems and leak detection systems; and

(vi) Final cover systems.

(b) Written CQA plan. Before construction begins on a unit subject to the CQA program under Subsection R315-265-19(a), the owner or operator shall develop a written CQA plan. The plan shall identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan shall include:

(1) Identification of applicable units, and a description of how they will be constructed.

(2) Identification of key personnel in the development and implementation of the CQA plan, and CQA officer qualifications.

(3) A description of inspection and sampling activities for all unit components identified in Subsection R315-265-19(a)(2), including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description shall cover: Sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under Section R315-265-73.

(c) Contents of program.

(1) The CQA program shall include observations, inspections, tests, and measurements sufficient to ensure:

(i) Structural stability and integrity of all components of the unit identified in Subsection R315-265-19(a)(2);

(ii) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components, for example, pipes, according to design specifications;

(iii) Conformity of all materials used with design and other material specifications under Sections R315-264-221, R315-264-251, and R315-264-301.

(2) The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full-scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of Subsections R315-264-221(c)(1), R315-264-251(c)(1), and R315-264-301(c)(1) in the field. Compliance with the hydraulic conductivity requirements shall be verified by using in-situ testing on the constructed test fill. The test fill requirement is waived where data are sufficient to show that a constructed soil liner meets the hydraulic conductivity requirements of Subsections R315-264-221(c)(1), R315-264-251(c)(1), and R315-264-301(c)(1) in the field.

(d) Certification. The owner or operator of units subject to Section R315-265-19 shall submit to the Director by certified mail or hand delivery, at least 30 days prior to receiving waste, a certification signed by the CQA officer that the CQA plan has been successfully carried out and that the unit meets the requirements of Subsections R315-265-221(a), Section R315-265-254, or 40 CFR 265.301(a), which is adopted and incorporated by reference. The owner or operator may receive waste in the unit after 30 days from the Director's receipt of the CQA certification unless the Director determines in writing that the construction is not acceptable, or extends the review period for a maximum of 30 more days, or seeks additional information from the owner or operator during this period. Documentation supporting the CQA officer's certification shall be furnished to the Director upon request.

R315-265-30. Preparedness and Prevention -- Applicability.

The regulations in Section R315-265-30 through 37 apply to owners and operators of all hazardous waste facilities, except as Section R315-265-1 provides otherwise.

R315-265-31. Preparedness and Prevention -- Maintenance and Operation of Facility.

Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

R315-265-32. Preparedness and Prevention -- Required Equipment.

All facilities shall be equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility personnel;

(b) A device, such as a telephone, immediately available at the scene of operations, or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals, spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

R315-265-33. Preparedness and Prevention -- Testing and Maintenance of Equipment.

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

R315-265-34. Preparedness and Prevention -- Access to Communications or Alarm System.

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under Section R315-265-32.

(b) If there is ever just one employee on the premises while the facility is operating, he shall have immediate access to a device, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under Section R315-265-32.

R315-265-35. Preparedness and Prevention -- Required Aisle Space.

The owner or operator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

R315-265-37. Preparedness and Prevention -- Arrangements with Local Authorities.

(a) The owner or operator shall attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;

(2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State or local authorities decline to enter into such arrangements, the owner or operator shall document the refusal in the operating record.

R315-265-50. Contingency Plan and Emergency Procedures -- Applicability.

The regulations in Sections R315-265-50 through 56 apply to owners and operators of all hazardous waste facilities, except as Section R315-265-1 provides otherwise.

R315-265-51. Contingency Plan and Emergency Procedures -- Purpose and Implementation of Contingency Plan.

(a) Each owner or operator shall have a contingency plan for his facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

R315-265-52. Contingency Plan and Emergency Procedures -- Content of Contingency Plan.

(a) The contingency plan shall describe the actions facility personnel shall take to comply with Sections R315-265-51 and R315-265-56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of Rule R315-265. The owner or operator may develop one contingency plan which meets all regulatory requirements. EPA recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

(c) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to Section R315-265-37.

(d) The plan shall list names, addresses, and phone numbers, office and home, of all persons qualified to act as emergency coordinator, see Section R315-265-55, and this list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

(e) The plan shall include a list of all emergency equipment at the facility, such as fire extinguishing systems, spill control equipment, communications and alarm systems, internal and external, and decontamination equipment, where this equipment is required. This list shall be kept up to date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by releases of hazardous waste or fires.

R315-265-53. Contingency Plan and Emergency Procedures -- Copies of Contingency Plan.

A copy of the contingency plan and all revisions to the plan shall be:

(a) Maintained at the facility; and

(b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

R315-265-54. Contingency Plan and Emergency Procedures --Amendment of Contingency Plan.

The contingency plan shall be reviewed, and immediately amended, if necessary, whenever:

(a) Applicable regulations are revised;

(b) The plan fails in an emergency;

(c) The facility changes-in its design, construction, operation, maintenance, or other circumstances-in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

(d) The list of emergency coordinators changes; or

(e) The list of emergency equipment changes.

R315-265-55. Contingency Plan and Emergency Procedures --Emergency Coordinator.

At all times, there shall be at least one employee either on the facility premises or on call, i.e., available to respond to an emergency by reaching the facility within a short period of time, with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan. Comment: The emergency coordinator's responsibilities are more fully spelled out in Section R315-265-56. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.

R315-265-56. Contingency Plan and Emergency Procedures --Emergency Procedures.

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator, or his designee when the emergency coordinator is on call, shall immediately:

(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(2) Notify appropriate State or local agencies with designated response roles if their help is needed.

(b) Whenever there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(c) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, for example, the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions.

(d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he shall report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he shall immediately notify appropriate local

authorities. He shall be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He shall immediately notify the Utah Department of Environmental Quality as specified in Section R315-263-30 and either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center, using their 24-hour toll free number 800/424-8802. The report shall include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident, for example, release, fire;

(iv) Name and quantity of material(s) involved, to the extent known;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

Comment: Unless the owner or operator can demonstrate, in accordance with Subsections R315-261-3(c) or (d), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Rules R315-262, R315-263, and R315-265.

(h) The emergency coordinator shall ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he shall submit a written report on the incident to the Director. The report shall include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident, for example, fire, explosion;

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

R315-265-70. Manifest System, Recordkeeping, and Reporting --Applicability.

(a) The regulations in R315-265-70 through R315-265-77 apply to owners and operators of both on-site and off-site facilities, except as Section R315-265-1 provides otherwise. Sections R315-265-71, R315-265-72, and R315-265-76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources.

R315-265-71. Manifest System, Recordkeeping, and Reporting --Use of Manifest System.

(a)(1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator or the owner or operator's agent shall sign and date the manifest as indicated in Subsection R315-265-71(a)(2) to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

(2) If the facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator, or the owner or operator's agent shall:

(i) sign and date each copy of the manifest;

(ii) note any discrepancies, as defined in Subsection R315-265-72(a), on each copy of the manifest;

(iii) immediately give the transporter at least one copy of the manifest;

(iv) within 30 days of delivery, send a copy, Page 2, of the manifest to the generator;

(v) paper manifest submission requirements are:

(A) Options for compliance on June 30, 2018. Beginning on June 30, 2018, send the top copy, Page 1, of any paper manifest and any paper continuation sheet to the e-Manifest system for data entry and processing, or in lieu of submitting the paper copy to EPA, the owner or operator may transmit to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or both a data file and image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made at the mailing address or electronic mail or submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, EPA will not accept mailed paper manifests from facilities for processing in e-Manifest.

(B) Options for compliance on June 30, 2021. Beginning on June 30, 2021, the requirement to submit the top copy, Page1, of the paper manifest and any paper continuation sheet to the e-Manifest system for data entry and processing may be met by the owner or operator only by transmitting to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or by

transmitting to the EPA system both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made to the electronic mail or submission address specified at the e-Manifest program website's directory of services; and

(vi) keep at the facility a copy of each manifest for at least three years from the date of delivery.

(3) The owner or operator of a facility that receives hazardous waste subject to Sections R315-262-80 through R315-265-84 from a foreign source shall:

(i) additionally list the relevant consent number from consent documentation supplied by EPA to the facility for each waste listed on the manifest, matched to the relevant list number for the waste from block 9b. If additional space is needed, the owner or operator should use a continuation sheet or sheets, EPA Form 8700-22A; and

(ii) send a copy of the manifest to EPA using the addresses listed in Subsection R315-262-82(e) within 30 days of delivery until the facility can submit a copy to the e-Manifest system per Subsection R315-265-71(a)(2)(v).

(b) If a facility receives, from a rail or water, bulk shipment, transporter, hazardous waste that is accompanied by a shipping paper containing the information required on the manifest, excluding the EPA identification numbers, generator's certification, and signatures, the owner or operator, or the owner or operator's agent, shall:

(1) sign and date each copy of the manifest or shipping paper, if the manifest has not been received, to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) note any significant discrepancies, as defined in Subsection R315-265-72(a), in the manifest or shipping paper, if the manifest has not been received, on each copy of the manifest or shipping paper;

(i) The director does not intend that the owner or operator of a facility whose procedures under Subsection R315-265-13(c) include waste analysis shall perform that analysis before signing the shipping paper and giving it to the transporter. Subsection R315-265-72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

(3) immediately give the rail or water, bulk shipment, transporter at least one copy of the manifest or shipping paper, if the manifest has not been received;

(4) within 30 days after the delivery, send a copy of the signed and dated manifest or a signed and dated copy of the shipping paper, if the manifest has not been received within 30 days after delivery, to the generator; and

(i) Subsection R315-262-23(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water, bulk shipment.

(5) keep at the facility a copy of the manifest and shipping paper, if signed in lieu of the manifest when delivered, for at least three years from the date of delivery.

(c) When a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements of Rule R315-262. Sections R315-262-15, R315-262-16, and R315-262-17 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, Sections R315-262-15, R315-262-16, and R315-262-17 only apply to owners or operators who are shipping hazardous waste that they generated at that facility or operating as a large quantity generator consolidating hazardous waste from very small quantity generators under Subsection R315-262-17(f).

(d) As per Subsection R315-262-84(d)(2)(xv), within three working days of the receipt of a shipment subject to Sections R315-262-80 through R315-262-84, the owner or operator of a facility shall provide a copy of the movement document bearing the required signatures to the foreign exporter, to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The original copy of the movement document shall be maintained at the facility for at least three years from the date of signature. The owner or operator of a facility may satisfy this recordkeeping requirement by keeping electronically submitted documents in the facility's account on EPA's Waste Import Export Tracking System (WIETS), or its successor system, if the copies are readily available for viewing and production if requested by any EPA or Utah inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's Waste Import Export Tracking System (WIETS), or its successor system, for which the owner or operator of a facility bears no responsibility.

(e) A facility shall determine whether the consignment state for a shipment regulates any additional wastes, beyond those regulated federally, as hazardous wastes under its state hazardous waste program. Facilities shall also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to these states.

(f) Legal equivalence to paper manifests. Electronic manifests that are procured, finished, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with this Section R315-265-71 in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy any requirement in Title R315 to get, finish, sign, provide, use, or keep a manifest.

(1) Any requirement in Rules R315-260 through R315-266, R315-268, R315-270, and R315-273 for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to get a handwritten signature, is satisfied by signing with or getting a valid and enforceable electronic signature within the meaning of Section R315-262-25.

(2) Any requirement in Title R315 to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied if a copy of an electronic manifest is transmitted to the other person.

(3) Any requirement in Title R315 for a manifest to accompany a hazardous waste shipment is satisfied if a copy of an electronic manifest is accessible during transportation and forwarded to the person who is scheduled to receive delivery of the hazardous waste shipment.

(4) Any requirement in Title R315 for an owner or operator to keep or keep a copy of each manifest is satisfied by the

retention of the facility's electronic manifest copies in its account on the e-Manifest system, if the copies are readily available for viewing and production if requested by any EPA or Utah inspector.

(5) No owner or operator may be held liable for the inability to produce an electronic manifest for inspection under this Section R315-265-71 if the owner or operator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the EPA system, for which the owner or operator bears no responsibility.

(g) An owner or operator may participate in the electronic manifest system either by accessing the electronic manifest system from the owner's or operator's electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the owner's or operator's site by the transporter who delivers the waste shipment to the facility.

(h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the following procedures apply to the delivery of the hazardous waste by the final transporter:

(1) Upon delivery of the hazardous waste to the designated facility, the owner or operator shall sign and date each copy of the paper replacement manifest by hand in Item 20, Designated Facility Certification of Receipt, and note any discrepancies in Item 18, Discrepancy Indication Space, of the replacement manifest.

(2) The owner or operator of the facility shall give back to the final transporter one copy of the paper replacement manifest.

(3) Within 30 days of delivery of the hazardous waste to the designated facility, the owner or operator of the facility shall send one signed and dated copy of the paper replacement manifest to the generator, and send an additional signed and dated copy of the paper replacement manifest to the EPA e-Manifest system.

(4) The owner or operator of the facility shall keep at the facility one copy of the paper replacement manifest for at least three years from the date of delivery.

(i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an electronic manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the owner or operator shall also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator shall keep this original copy among its records for at least three years from the date of delivery of the waste.

(j) Imposition of user fee for electronic manifest use.

(1) As prescribed in 40 CFR 265.1311, and determined in 40 CFR 265.1312, which are incorporated by reference, an owner or operator who is a user of the electronic manifest system shall be assessed a user fee by EPA for the submission and processing of each electronic and paper manifest. EPA shall update the schedule of user fees and publish them to the user community, as provided in 40 CFR 265.1313, which is incorporated by reference.

(2) An owner or operator subject to user fees under Section R315-265-71 shall make user fee payments in accordance with the requirements of 40 CFR 265.1314, subject to the informal fee dispute resolution process of 40 CFR 265.1316, and subject to the sanctions for delinquent payments under 40 CFR 265.1315, which are incorporated by reference.

(k) Electronic manifest signatures.

(1) Electronic manifest signatures shall meet the criteria described in Section R315-262-25.

(l) Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person, for example, waste handler, shown on the manifest.

(1) Interested persons shall make each correction to manifest data by electronic submission, either by directly entering corrected data to the web based service provided in e-Manifest for corrections, or by an upload of a data file containing data corrections relating to one or more previously submitted manifests.

(2) Each correction submission shall include the following information:

(i) the Manifest Tracking Number and date of receipt by the facility of the original manifest or manifests for which data are being corrected;

(ii) the Item Numbers of the original manifest that is the subject of the submitted corrections; and

(iii) for each Item Number with corrected data, the data previously entered and the corresponding data as corrected by the correction submission.

(3) Each correction submission shall include a statement that the person submitting the corrections certifies that to the best of their knowledge or belief, the corrections that are included in the submission will cause the information reported about the previously received hazardous wastes to be true, accurate, and complete.

(i) The certification statement shall be executed with a valid electronic signature; and

(ii) A batch upload of data corrections may be submitted under one certification statement.

(4) Upon receipt by the system of any correction submission, other interested persons shown on the manifest will be provided electronic notice of the submitter's corrections.

(5) Other interested persons shown on the manifest may respond to the submitter's corrections with comments to the submitter, or by submitting another correction to the system, certified by the respondent as specified in Subsection R315-265-71(l)(3), and with notice of the corrections to other interested persons shown on the manifest.

R315-265-72. Manifest System, Recordkeeping, and Reporting -- Manifest Discrepancies.

(a) Manifest discrepancies are:

(1) significant differences, as defined by Subsection R315-265-72(b), between the quantity or type of hazardous waste

designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives;

(2) rejected wastes, which may be a full or partial shipment of hazardous waste that the TSDF cannot accept; or

(3) container residues, which are residues that exceed the quantity limits for "empty" containers set forth in Subsection R315-261-7(b) and Section R315-266-507.

(b) Significant differences in quantity are: For bulk waste, variations greater than 10% in weight; for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant differences in type are obvious differences that can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(c) Upon discovering a significant difference in quantity or type, the owner or operator shall try to reconcile the discrepancy with the waste generator or transporter, for example, with telephone conversations. If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator shall immediately submit to the director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(d)(1) Upon rejecting waste or identifying a container residue that exceeds the quantity limits for "empty" containers set forth in Subsection R315-261-7(b), the facility shall consult with the generator before forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative facility that can receive the waste, the facility may return the rejected waste or residue to the generator. The facility shall send the waste to the alternative facility or to the generator within 60 days of the rejection or the container residue identification.

(2) While the facility is making arrangements for forwarding rejected wastes or residues to another facility under this Section R315-265-72, it shall ensure that either the delivering transporter keeps custody of the waste, or the facility shall provide for secure, temporary custody of the waste, pending delivery of the waste to the first transporter designated on the manifest prepared under Subsection R315-265-72(e) or R315-265-72(f).

(e) Except as provided in Subsection R315-265-72(e)(7), for full or partial load rejections and residues that are to be sent off-site to an alternate facility, the facility shall prepare a new manifest in accordance with Subsection R315-262-20(a) and the following instructions:

(1) Write the generator's U.S. EPA ID number in Item 1 of the new manifest. Write the generator's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the generator's site address, then write the generator's site address in the designated space in Item 5.

(2) Write the name of the alternate designated facility and the facility's U.S. EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and state that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, U.S. DOT Description, of the new manifest and write the container types, quantity, and volumes of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation, and mail a signed copy of the manifest to the generator identified in Item 5 of the new manifest.

(7) For full load rejections that are made while the transporter remains present at the facility, the facility may forward the rejected shipment to the alternate facility by completing Item 18b of the original manifest and supplying the information on the next destination facility in the Alternate Facility space. The facility shall keep a copy of this manifest for its records, and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-265-72(e)(1), R315-265-72(e)(2), R315-265-72(e)(3), R315-265-72(e)(4), R315-265-72(e)(5), and R315-265-72(e)(6).

(f) Except as provided in Subsection R315-265-72(f)(7), for rejected wastes and residues that must be sent back to the generator, the facility shall prepare a new manifest in accordance with Subsection R315-262-20(a) and the following instructions:

(1) Write the facility's U.S. EPA ID number in Item 1 of the new manifest. Write the facility's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the facility's site address, then write the facility's site address in the designated space for Item 5 of the new manifest.

(2) Write the name of the initial generator and the generator's U.S. EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and state that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, U.S. DOT Description, of the new manifest and write the container types, quantity, and volumes of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation.

(7) For full load rejections that are made while the transporter remains at the facility, the facility may return the shipment to the generator with the original manifest by completing Item 18a and 18b of the manifest and supplying the generator's information in the Alternate Facility space. The facility shall keep a copy for its records and then give the remaining copies of the manifest to the

transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-265-72(f)(1), R315-265-72(f)(2), R315-265-72(f)(3), R315-265-72(f)(4), R315-265-72(f)(5), R315-265-72(f)(6), and R315-265-72(f)(8).

(8) For full or partial load rejections and container residues contained in non-empty containers that are returned to the generator, the facility shall also comply with the exception reporting requirements in Subsection R315-262-42(a).

(g) If a facility rejects a waste or identifies a container residue that exceeds the quantity limits for "empty" containers set forth in Subsection R315-261-7(b) after it has signed, dated, and returned a copy of the manifest to the delivering transporter or to the generator, the facility shall amend its copy of the manifest to show the rejected wastes or residues in the discrepancy space of the amended manifest. The facility shall also copy the manifest tracking number from Item 4 of the new manifest to the discrepancy space of the amended manifest and shall re-sign and date the manifest to certify to the information as amended. The facility shall keep the amended manifest for at least three years from the date of amendment, and shall within 30 days, send a copy of the amended manifest to the transporter and generator that received copies before their being amended.

R315-265-73. Manifest System, Recordkeeping, and Reporting -- Operating Record.

(a) The owner or operator shall keep a written operating record at his facility.

(b) The following information shall be recorded, as it becomes available, and maintained in the operating record for three years unless noted below:

(1) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by Appendix I to 40 CFR part 265, which is adopted and incorporated by reference. This information shall be maintained in the operating record until closure of the facility;

(2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste shall be recorded on a map or diagram of each cell or disposal area. For all facilities, this information shall include cross-references to manifest document numbers if the waste was accompanied by a manifest. This information shall be maintained in the operating record until closure of the facility;

Comment: See Section R315-265-119, 40 CFR 265.279, and 40 CFR 265.309, which are adopted and incorporated by reference, for related requirements.

(3) Records and results of waste analysis, waste determinations, and trial tests performed as specified in Sections R315-265-13, R315-265-200, R315-265-225, R315-265-252, 40 CFR 265.273, 265.314, 265.341, 265.375, 265.402, 265.1034, 265.1063, 265.1084, which are adopted and incorporated by reference, Subsection R315-268-4(a), and Section R315-268-7.

(4) Summary reports and details of all incidents that require implementing the contingency plan as specified in Subsection R315-265-56(j);

(5) Records and results of inspections as required by Subsection R315-265-15(d), except these data need be kept only three years;

(6) Monitoring, testing or analytical data, and corrective action where required by Sections R315-265-90 through 265-94 and by Sections R315-265-19, R315-265-94, R315-265-191, R315-265-193, R315-265-195, R315-265-224, R315-265-226, R315-265-255, R315-265-260, 40 CFR 265.276, 265.278, 265.280(d)(1), 265.302, 265.304, 265.347, 265.377, 265.1034(c) through 265.1034(f), 265.1035, 265.1063(d) through 265. 265.1063(i), 265.1064, and 265.1083 through 265.1090, which are adopted and incorporated by reference. Maintain in the operating record for three years, except for records and results pertaining to ground-water monitoring and cleanup, and response action plans for surface impoundments, waste piles, and landfills, which shall be maintained in the operating record until closure of the facility.

Comment: As required by Section R315-265-94, monitoring data at disposal facilities shall be kept throughout the post-closure period.

(7) All closure cost estimates under Section R315-265-142 and, for disposal facilities, all post-closure cost estimates under Section R315-265-144 shall be maintained in the operating record until closure of the facility.

(8) Records of the quantities, and date of placement, for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to Section R315-268-5, monitoring data required pursuant to a petition under Section R315-268-6, or a certification under Section R315-268-8, and the applicable notice required by a generator under Subsection R315-268-7(a). All of this information shall be maintained in the operating record until closure of the facility.

(9) For an off-site treatment facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under Sections R315-268-7 or R315-268-8;

(10) For an on-site treatment facility, the information contained in the notice, except the manifest number, and the certification and demonstration if applicable, required by the generator or the owner or operator under Sections R315-268-7 or R315-268-8;

(11) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under Sections R315-268-7 or R315-268-8;

(12) For an on-site land disposal facility, the information contained in the notice, except the manifest number, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under Sections R315-268-7 or R315-268-8.

(13) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under Sections R315-268-7 or R315-268-8; and

(14) For an on-site storage facility, the information contained in the notice, except the manifest number, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under Sections R315-268-7 or R315-268-8.

(15) Monitoring, testing or analytical data, and corrective action where required by Section R315-265-90, Subsections R315-265-

93(d)(2), and R315-265-93(d)(5), and the certification as required by Subsection R315-265-196(f) shall be maintained in the operating record until closure of the facility.

R315-265-74. Manifest System, Recordkeeping, and Reporting -- Availability, Retention, and Dispostion of Records.

(a) All records, including plans, required under Rule R315-265 shall be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the Director.

(b) The retention period for all records required under Rule R315-265 is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Director.

(c) A copy of records of waste disposal locations and quantities under Subsection R315-265-73(b)(2) shall be submitted to the Director and local land authority upon closure of the facility, see Section R315-265-119.

R315-265-75. Manifest System, Recordkeeping, and Reporting -- Biennial Report.

The owner or operator shall complete and submit EPA Form 8700-13 A/B to the Director by March 1 of the following even numbered year and shall cover activities during the previous year.

R315-265-76. Manifest System, Recordkeeping, and Reporting -- Unmanifested Waste Report.

(a) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described by Subsection R315-263-20(e), and if the waste is not excluded from the manifest requirement by Rules R315-260 through R315-266, R315-268, R315-270 or R315-273, then the owner or operator shall prepare and submit a letter to the Director within fifteen days after receiving the waste. The unmanifested waste report shall contain the following information:

(1) The EPA identification number, name and address of the facility;

(2) The date the facility received the waste;

(3) The EPA identification number, name and address of the generator and the transporter, if available;

(4) A description and the quantity of each unmanifested hazardous waste the facility received;

(5) The method of treatment, storage, or disposal for each hazardous waste;

(6) The certification signed by the owner or operator of the facility or his authorized representative; and

(7) A brief explanation of why the waste was unmanifested, if known.

R315-265-77. Manifest System, Recordkeeping, and Reporting -- Additional Reports.

In addition to submitting the biennial report and unmanifested waste reports described in Sections R315-265-75 and 265-76, the owner or operator shall also report to the Director:

(a) Releases, fires, and explosions as specified in Subsection R315-265-56(j);

(b) Ground-water contamination and monitoring data as specified in Sections R315-265-93 and R315-265-94; and

(c) Facility closure as specified in Section R315-265-115.

(d) As otherwise required by 40 CFR 265 Subparts AA, BB, and CC, which are adopted and incorporated by reference.

R315-265-90. Ground-Water Monitoring - Applicability.

(a) Within one year after the effective date of these regulations, the owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste shall implement a ground-water monitoring program capable of determining the facility's impact on the quality of ground water in the uppermost aquifer underlying the facility, except as Section R315-265-1 and Subsection R315-265-90(c) provide otherwise.

(b) Except as Subsections R315-265-90(c) and (d) provide otherwise, the owner or operator shall install, operate, and maintain a ground-water monitoring system which meets the requirements of Section R315-265-91, and shall comply with Sections R315-265-92 through 265-94. This ground-water monitoring program shall be carried out during the active life of the facility, and for disposal facilities, during the post-closure care period as well.

(c) All or part of the ground-water monitoring requirements of Sections R315-265-90 through 265-94 may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste or hazardous waste constituents from the facility via the uppermost aquifer to water supply wells, domestic, industrial, or agricultural, or to surface water. This demonstration shall be in writing, and shall be kept at the facility. This demonstration shall be certified by a qualified geologist or geotechnical engineer and shall establish the following:

(1) The potential for migration of hazardous waste or hazardous waste constituents from the facility to the uppermost aquifer, by an evaluation of:

(i) A water balance of precipitation, evapotranspiration, runoff, and infiltration; and

(ii) Unsaturated zone characteristics, i.e., geologic materials, physical properties, and depth to ground water; and

(2) The potential for hazardous waste or hazardous waste constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:

(i) Saturated zone characteristics, i.e., geologic materials, physical properties, and rate of ground-water flow; and

(ii) The proximity of the facility to water supply wells or surface water.

(d) If an owner or operator assumes, or knows, that ground-water monitoring of indicator parameters in accordance with Sections R315-265-91 and 265-92 would show statistically significant increases, or decreases in the case of pH, when evaluated under Subsection R315-265-93(b), he may install, operate, and maintain an alternate ground-water monitoring system, other than the one described in

Sections R315-265-91 and 265-92. If the owner or operator decides to use an alternate ground-water monitoring system he shall:

(1) Within one year after the effective date of these regulations, develop a specific plan, certified by a qualified geologist or geotechnical engineer, which satisfies the requirements of Subsection R315-265-93(d)(3), for an alternate ground-water monitoring system. This plan is to be placed in the facility's operating record and maintained until closure of the facility.

(2) Not later than one year after the effective date of these regulations, initiate the determinations specified in Subsection R315-265-93(d)(4);

(3) Prepare a report in accordance with Subsection R315-265-93(d)(5) and place it in the facility's operating record and maintain until closure of the facility.

(4) Continue to make the determinations specified in Subsection R315-265-93(d)(4) on a quarterly basis until final closure of the facility; and

(5) Comply with the recordkeeping and reporting requirements in Subsection R315-265-94(b).

(e) The ground-water monitoring requirements of this Sections R315-265-90 through 265-94 may be waived with respect to any surface impoundment that (1) Is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under Section R315-261-22 or are listed as hazardous wastes in Sections R315-261-30 through 261-35 only for this reason, and (2) contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstration shall establish, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration shall be in writing and shall be certified by a qualified professional.

(f) The Director may replace all or part of the requirements of Sections R315-265-90 through 265-94 applying to a regulated unit, as defined in Section R315-264-90, with alternative requirements developed for groundwater monitoring set out in an approved closure or post-closure plan or in an enforceable document, as defined in Subsection R315-270-1(c)(7), where the Director determines that:

(1) A regulated unit is situated among solid waste management units, or areas of concern, a release has occurred, and both the regulated unit and one or more solid waste management unit(s), or areas of concern, are likely to have contributed to the release; and

(2) It is not necessary to apply the requirements of Sections R315-265-90 through 265-94 because the alternative requirements will protect human health and the environment. The alternative standards for the regulated unit shall meet the requirements of Subsection R315-264-101(a).

R315-265-91. Ground-Water Monitoring -- Ground-Water Monitoring System.

(a) A ground-water monitoring system shall be capable of yielding ground-water samples for analysis and shall consist of:

(1) Monitoring wells, at least one, installed hydraulically upgradient, i.e., in the direction of increasing static head, from the limit of the waste management area. Their number, locations, and depths shall be sufficient to yield ground-water samples that are:

(i) Representative of background ground-water quality in the uppermost aquifer near the facility; and

(ii) Not affected by the facility; and

(2) Monitoring wells, at least three, installed hydraulically downgradient, i.e., in the direction of decreasing static head, at the limit of the waste management area. Their number, locations, and depths shall ensure that they immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

(3) The facility owner or operator may demonstrate that an alternate hydraulically downgradient monitoring well location will meet the criteria outlined below. The demonstration shall be in writing and kept at the facility. The demonstration shall be certified by a qualified ground-water scientist and establish that:

(i) An existing physical obstacle prevents monitoring well installation at the hydraulically downgradient limit of the waste management area; and

(ii) The selected alternate downgradient location is as close to the limit of the waste management area as practical; and

(iii) The location ensures detection that, given the alternate location, is as early as possible of any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

(iv) Lateral expansion, new, or replacement units are not eligible for an alternate downgradient location under Section R315-265-91.

(b) Separate monitoring systems for each waste management component of a facility are not required provided that provisions for sampling upgradient and downgradient water quality will detect any discharge from the waste management area.

(1) In the case of a facility consisting of only one surface impoundment, landfill, or land treatment area, the waste management area is described by the waste boundary, perimeter.

(2) In the case of a facility consisting of more than one surface impoundment, landfill, or land treatment area, the waste management area is described by an imaginary boundary line which circumscribes the several waste management components.

(c) All monitoring wells shall be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing shall be screened or perforated, and packed with gravel or sand where necessary, to enable sample collection at depths where appropriate aquifer flow zones exist. The annular space, i.e., the space between the bore hole and well casing, above the sampling depth shall be sealed with a suitable material, for example, cement grout or bentonite slurry, to prevent contamination of samples and the ground water.

R315-265-92. Ground-Water Monitoring -- Sampling and Analysis.

(a) The owner or operator shall obtain and analyze samples from the installed ground-water monitoring system. The owner or operator shall develop and follow a ground-water sampling and analysis plan. He shall keep this plan at the facility. The plan shall include procedures and techniques for:

(1) Sample collection;
(2) Sample preservation and shipment;
(3) Analytical procedures; and
(4) Chain of custody control.

Comment: See "Procedures Manual For Ground-water Monitoring At Solid Waste Disposal Facilities," EPA-530/SW-611, August 1977 and "Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020, March 1979 for discussions of sampling and analysis procedures.

(b) The owner or operator shall determine the concentration or value of the following parameters in ground-water samples in accordance with Subsections R315-265-92(c) and (d):

(1) Parameters characterizing the suitability of the ground water as a drinking water supply, as specified in Appendix III to 40 CFR 265, which is adopted and incorporated by reference.

(2) Parameters establishing ground-water quality:
(i) Chloride
(ii) Iron
(iii) Manganese
(iv) Phenols
(v) Sodium
(vi) Sulfate

Comment: These parameters are to be used as a basis for comparison in the event a ground-water quality assessment is required under Subsection R315-265-93(d).

(3) Parameters used as indicators of ground-water contamination:
(i) pH
(ii) Specific Conductance
(iii) Total Organic Carbon
(iv) Total Organic Halogen

(c)(1) For all monitoring wells, the owner or operator shall establish initial background concentrations or values of all parameters specified in Subsection R315-265-92(b). He shall do this quarterly for one year.

(2) For each of the indicator parameters specified in Subsection R315-265-92(b)(3), at least four replicate measurements shall be obtained for each sample and the initial background arithmetic mean and variance shall be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.

(d) After the first year, all monitoring wells shall be sampled and the samples analyzed with the following frequencies:

(1) Samples collected to establish ground-water quality shall be obtained and analyzed for the parameters specified in Subsection R315-265-92(b)(2) at least annually.

(2) Samples collected to indicate ground-water contamination shall be obtained and analyzed for the parameters specified in Subsection R315-265-92(b)(3) at least semi-annually.

(e) Elevation of the ground-water surface at each monitoring well shall be determined each time a sample is obtained.

R315-265-93. Ground-Water Monitoring -- Preparation, Evaluation, and Response.

(a) Within one year after the effective date of these regulations, the owner or operator shall prepare an outline of a ground-water quality assessment program. The outline shall describe a more comprehensive ground-water monitoring program, than that described in Sections R315-265-91 and 265-92, capable of determining:

(1) Whether hazardous waste or hazardous waste constituents have entered the ground water;

(2) The rate and extent of migration of hazardous waste or hazardous waste constituents in the ground water; and

(3) The concentrations of hazardous waste or hazardous waste constituents in the ground water.

(b) For each indicator parameter specified in Subsection R315-265-92(b)(3), the owner or operator shall calculate the arithmetic mean and variance, based on at least four replicate measurements on each sample, for each well monitored in accordance with Subsection R315-265-92(d)(2), and compare these results with its initial background arithmetic mean. The comparison shall consider individually each of the wells in the monitoring system, and shall use the Student's t-test at the 0.01 level of significance, see Appendix IV to 40 CFR 265, which is adopted and incorporated by reference, to determine statistically significant increases, and decreases, in the case of pH, over initial background.

(c)(1) If the comparisons for the upgradient wells made under Subsection R315-265-93(b) show a significant increase, or pH decrease, the owner or operator shall submit this information in accordance with Subsection R315-265-94(a)(2)(ii).

(2) If the comparisons for downgradient wells made under Subsection R315-265-93(b) show a significant increase, or pH decrease, the owner or operator shall then immediately obtain additional ground-water samples from those downgradient wells where a significant difference was detected, split the samples in two, and obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error.

(d)(1) If the analyses performed under Subsection R315-265-93(c)(2) confirm the significant increase, or pH decrease, the owner or operator shall provide written notice to the Director---within seven days of the date of such confirmation---that the facility may be affecting ground-water quality.

(2) Within 15 days after the notification under Subsection R315-265-93(d)(1), the owner or operator shall develop a specific plan, based on the outline required under Subsection R315-265-93(a) and certified by a qualified geologist or geotechnical engineer, for a ground-water quality assessment at the facility. This plan shall be placed in the facility operating record and be maintained until closure of

the facility.

(3) The plan to be submitted under Subsection R315-265-90(d)(1) or Subsection R315-265-93(d)(2)shall specify:

(i) The number, location, and depth of wells;

(ii) Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility;

(iii) Evaluation procedures, including any use of previously-gathered ground-water quality information; and

(iv) A schedule of implementation.

(4) The owner or operator shall implement the ground-water quality assessment plan which satisfies the requirements of Subsection R315-265-93(d)(3), and, at a minimum, determine:

(i) The rate and extent of migration of the hazardous waste or hazardous waste constituents in the ground water; and

(ii) The concentrations of the hazardous waste or hazardous waste constituents in the ground water.

(5) The owner or operator shall make his first determination under Subsection R315-265-93(d)(4), as soon as technically feasible, and prepare a report containing an assessment of ground-water quality. This report shall be placed in the facility operating record and be maintained until closure of the facility.

(6) If the owner or operator determines, based on the results of the first determination under Subsection R315-265-93(d)(4), that no hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he may reinstate the indicator evaluation program described in Section R315-265-92 and Subsection R315-265-93(b). If the owner or operator reinstates the indicator evaluation program, he shall so notify the Director in the report submitted under Subsection R315-265-93(d)(5).

(7) If the owner or operator determines, based on the first determination under Subsection R315-265-93(d)(4), that hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he:

(i) Shall continue to make the determinations required under Subsection R315-265-93(d)(4) on a quarterly basis until final closure of the facility, if the ground-water quality assessment plan was implemented prior to final closure of the facility; or

(ii) May cease to make the determinations required under Subsection R315-265-93(d)(4), if the ground-water quality assessment plan was implemented during the post-closure care period.

(e) Notwithstanding any other provision of Sections R315-265-90 through R315-265-94, any ground-water quality assessment to satisfy the requirements of Subsection R315-265-93(d)(4) which is initiated prior to final closure of the facility shall be completed and reported in accordance with Subsection R315-265-93(d)(5).

(f) Unless the ground water is monitored to satisfy the requirements of Subsection R315-265-93(d)(4), at least annually the owner or operator shall evaluate the data on ground-water surface elevations obtained under Subsection R315-265-92(e) to determine whether the requirements under Subsection R315-265-91(a) for locating the monitoring wells continues to be satisfied. If the evaluation shows that Subsection R315-265-91(a) is no longer satisfied, the owner or operator shall immediately modify the number, location, or depth of the monitoring wells to bring the ground-water monitoring system into compliance with this requirement.

R315-265-94. Ground-Water Monitoring -- Recordkeeping and Reporting.

(a) Unless the ground water is monitored to satisfy the requirements of Subsection R315-265-93(d)(4), the owner or operator shall:

(1) Keep records of the analyses required in Subsections R315-265-92(c) and (d), the associated ground-water surface elevations required in Subsection R315-265-92(e), and the evaluations required in Subsection R315-265-93(b) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Report the following ground-water monitoring information to the Director:

(i) During the first year when initial background concentrations are being established for the facility: concentrations or values of the parameters listed in Subsection R315-265-92(b)(1) for each ground-water monitoring well within 15 days after completing each quarterly analysis. The owner or operator shall separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in Appendix III to 40 CFR 265, which is adopted and incorporated by reference.

(ii) Annually: Concentrations or values of the parameters listed in Subsection R315-265-92(b)(3) for each ground-water monitoring well, along with the required evaluations for these parameters under Subsection R315-265-93(b). The owner or operator shall separately identify any significant differences from initial background found in the upgradient wells, in accordance with Subsection R315-265-93(c)(1). During the active life of the facility, this information shall be submitted no later than March 1 following each calendar year.

(iii) No later than March 1 following each calendar year: Results of the evaluations of ground-water surface elevations under Subsection R315-265-93(f), and a description of the response to that evaluation, where applicable.

(b) If the ground water is monitored to satisfy the requirements of Subsection R315-265-93(d)(4), the owner or operator shall:

(1) Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of Subsection R315-265-93(d)(3), throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Annually, until final closure of the facility, submit to the Director a report containing the results of his or her ground-water quality assessment program which includes, but is not limited to, the calculated, or measured, rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period. This information shall be submitted no later than March 1 following each calendar year.

R315-265-110. Closure and Post-Closure -- Applicability.

Except as Section R315-265-1 provides otherwise:

(a) Sections R315-265-111 through 265-115, which concern closure, apply to the owners and operators of all hazardous waste management facilities; and

(b) Sections R315-265-116 through R315-265-120, which concern post-closure care, apply to the owners and operators of:

(1) All hazardous waste disposal facilities;

(2) Waste piles and surface impoundments for which the owner or operator intends to remove the wastes at closure to the extent that these sections are made applicable to such facilities in Sections R315-265-228 or R315-265-258;

(3) Tank systems that are required under Section R315-265-197 to meet requirements for landfills; and

(4) Containment buildings that are required under 40 CFR 265.1102, which is adopted and incorporated by reference, to meet the requirement for landfills.

(c) Section R315-265-121 applies to owners and operators of units that are subject to the requirements of Subsection R315-270-1(c)(7) and are regulated under an enforceable document, as defined in Subsection R315-270-1(c)(7).

(d) The Director may replace all or part of the requirements of Sections R315-265-110 through 265-121, and the unit-specific standards in Subsection R315-265-111(c), applying to a regulated unit, as defined in Section R315-264-90, with alternative requirements for closure set out in an approved closure or post-closure plan, or in an enforceable document, as defined in Subsection R315-270-1(c)(7), where the Director determines that:

(1) A regulated unit is situated among solid waste management units, or areas of concern, a release has occurred, and both the regulated unit and one or more solid waste management unit(s), or areas of concern, are likely to have contributed to the release, and

(2) It is not necessary to apply the closure requirements of Sections R315-265-110 through 265-121, those referenced herein, or both, because the alternative requirements will protect human health and the environment, and will satisfy the closure performance standard of Subsections R315-265-111(a) and (b).

R315-265-111. Closure and Post-Closure -- Closure Performance Standard.

The owner or operator shall close the facility in a manner that:

(a) Minimizes the need for further maintenance, and

(b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere, and

(c) Complies with the closure requirements of Sections R315-110 through 121, including, but not limited to, the requirements of Sections R315-265-197, R315-265-228, R315-265-258, and 40 CFR 265.280, 265.310, 265.351, 265.381, 265.404, and 265.1102, which are adopted and incorporated by reference.

R315-265-112. Closure and Post-Closure -- Closure Plan; Amendment of Plan.

(a) Written plan. By May 19, 1981, or by six months after the effective date of the rule that first subjects a facility to provisions of Section R315-265-112, the owner or operator of a hazardous waste management facility shall have a written closure plan. Until final closure is completed and certified in accordance with Section R315-265-115, a copy of the most current plan shall be furnished to the Director upon request, including request by mail. In addition, for facilities without approved plans, it shall also be provided during site inspections, on the day of inspection, to any officer, employee, or representative of the Director who is duly designated by the Director.

(b) Content of plan. The plan shall identify steps necessary to perform partial, final, or both, closure of the facility at any point during its active life. The closure plan shall include, at least:

(1) A description of how each hazardous waste management unit at the facility will be closed in accordance with Section R315-265-111; and

(2) A description of how final closure of the facility will be conducted in accordance with Section R315-265-111. The description shall identify the maximum extent of the operation which will be unclosed during the active life of the facility; and

(3) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial and final closure, including, but not limited to methods for removing, transporting, treating, storing or disposing of all hazardous waste, identification of and the type(s) of off-site hazardous waste management unit(s) to be used, if applicable; and

(4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to satisfy the closure performance standard; and

(5) A detailed description of other activities necessary during the partial and final closure periods to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground-water monitoring, leachate collection, and run-on and run-off control; and

(6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule shall include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover shall be included.; and

(7) An estimate of the expected year of final closure for facilities that use trust funds to demonstrate financial assurance under Sections R315-265-143 or 265-145 and whose remaining operating life is less than twenty years, and for facilities without approved closure plans.

(8) For facilities where the Director has applied alternative requirements at a regulated unit under Subsections R315-265-90(f), R315-265-110(d), R315-265-140(d), or all three, either the alternative requirements applying to the regulated unit, or a reference to the enforceable document containing those alternative requirements.

(c) Amendment of plan. The owner or operator may amend the closure plan at any time prior to the notification of partial or final closure of the facility. An owner or operator with an approved closure plan shall submit a written request to the Director to authorize a change to the approved closure plan. The written request shall include a copy of the amended closure plan for approval by the Director.

(1) The owner or operator shall amend the closure plan whenever:

(i) Changes in operating plans or facility design affect the closure plan, or

(ii) There is a change in the expected year of closure, if applicable, or

(iii) In conducting partial or final closure activities, unexpected events require a modification of the closure plan.

(iv) The owner or operator requests the Director to apply alternative requirements to a regulated unit under Subsections R315-265-90(f), R315-265-110(d), R315-265-140(d), or all three.

(2) The owner or operator shall amend the closure plan at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator shall amend the closure plan no later than 30 days after the unexpected event. These provisions also apply to owners or operators of surface impoundments and waste piles who intended to remove all hazardous wastes at closure, but are required to close as landfills in accordance with 40 CFR 265.310, which is adopted and incorporated by reference.

(3) An owner or operator with an approved closure plan shall submit the modified plan to the Director at least 60 days prior to the proposed change in facility design or operation, or no more than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event has occurred during the partial or final closure period, the owner or operator shall submit the modified plan no more than 30 days after the unexpected event. These provisions also apply to owners or operators of surface impoundments and waste piles who intended to remove all hazardous wastes at closure but are required to close as landfills in accordance with 40 CFR 265.310, which is adopted and incorporated by reference. If the amendment to the plan is a Class 2 or 3 modification according to the criteria in Section R315-270-42, the modification to the plan will be approved according to the procedures in Subsection R315-265-112(d)(4).

(4) The Director may request modifications to the plan under the conditions described in Subsection R315-265-112(c)(1). An owner or operator with an approved closure plan shall submit the modified plan within 60 days of the request from the Director, or within 30 days if the unexpected event occurs during partial or final closure. If the amendment is considered a Class 2 or 3 modification according to the criteria in Section R315-270-42, the modification to the plan will be approved in accordance with the procedures in Subsection R315-265-112(d)(4).

(d) Notification of partial closure and final closure.

(1) The owner or operator shall submit the closure plan to the Director at least 180 days prior to the date on which he expects to begin closure of the first surface impoundment, waste pile, land treatment, or landfill unit, or final closure if it involves such a unit, whichever is earlier. The owner or operator shall submit the closure plan to the Director at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace. The owner or operator shall submit the closure plan to the Director at least 45 days prior to the date on which he expects to begin final closure of a facility with only tanks, container storage, or incinerator units. Owners or operators with approved closure plans shall notify the Director in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, landfill, or land treatment unit, or final closure of a facility involving such a unit. Owners or operators with approved closure plans shall notify the Director in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace. Owners or operators with approved closure plans shall notify the Director in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only tanks, container storage, or incinerator units.

(2) The date when he "expects to begin closure" shall be either:

(i) Within 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes, or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit can demonstrate to the Director that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all interim status requirements, the Director may approve an extension to this one-year limit; or

(ii) For units meeting the requirements of Subsection R315-265-113(d), no later than 30 days after the date on which the hazardous waste management unit receives the known final volume of nonhazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional nonhazardous wastes, no later than one year after the date on which the unit received the most recent volume of nonhazardous wastes. If the owner or operator can demonstrate to the Director that the hazardous waste management unit has the capacity to receive additional nonhazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable interim status requirements, the Director may approve an extension to this one-year limit.

(3) The owner or operator shall submit his closure plan to the Director no later than 15 days after:

(i) Termination of interim status except when a permit is issued simultaneously with termination of interim status; or

(ii) Issuance of a judicial decree or final order under section 3008 of RCRA to cease receiving hazardous wastes or close.

(4) The Director will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request modifications to the plan no later than 30 days from the date of the notice. He will also, in response to a request or at his own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a closure plan. The Director will give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined. The Director will

approve, modify, or disapprove the plan within 90 days of its receipt. If the Director does not approve the plan he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator shall modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Director will approve or modify this plan in writing within 60 days. If the Director modifies the plan, this modified plan becomes the approved closure plan. The Director shallt assure that the approved plan is consistent with Sections R315-265-111 through 265-115 and the applicable requirements of Sections R315-265-90 through 265-94, and Sections R315-265-197, R315-265-228, R315-265-258, and 40 CFR 265.280, 265.310, 265.351, 265.381, 265.404, and 265.1102, which are adopted and incorporated by reference. A copy of the modified plan with a detailed statement of reasons for the modifications shall be mailed to the owner or operator.

(e) Removal of wastes and decontamination or dismantling of equipment. Nothing in Section R315-265-112 shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

R315-265-113. Closure and Post-Closure -- Closure; Time Allowed for Closure.

(a) Within 90 days after receiving the final volume of hazardous wastes, or the final volume of nonhazardous wastes if the owner or operator complies with all applicable requirements in Subsections R315-265-113(d) and (e), at a hazardous waste management unit or facility, or within 90 days after approval of the closure plan, whichever is later, the owner or operator shall treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The Director may approve a longer period if the owner or operator demonstrates that:

(1)(i) The activities required to comply with this Subsection R315-265-113(a) will, of necessity, take longer than 90 days to complete; or

(ii)(A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the facility owner or operator complies with Subsections R315-265-113(d) and (e); and

(B) There is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable interim status requirements.

(b) The owner or operator shall complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of nonhazardous wastes if the owner or operator complies with all applicable requirements in Subsections R315-265-113(d) and (e), at the hazardous waste management unit or facility, or 180 days after approval of the closure plan, if that is later. The Director may approve an extension to the closure period if the owner or operator demonstrates that:

(1)(i) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

(ii)(A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the facility owner or operator complies with Subsections R315-265-113(d) and (e); and

(B) There is reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and

(C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

(2) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with all applicable interim status requirements.

(c) The demonstrations referred to in Subsections R315-265-113(a)(1) and (b)(1) shall be made as follows:

(1) The demonstrations in Subsection R315-265-113(a)(1) shall be made at least 30 days prior to the expiration of the 90-day period in Subsection R315-265-113(a); and

(2) The demonstration in Subsection R315-265-113(b)(1) shall be made at least 30 days prior to the expiration of the 180-day period in Subsection R315-265-113(b), unless the owner or operator is otherwise subject to the deadlines in Subsection R315-265-113(d).

(d) The Director may allow an owner or operator to receive non-hazardous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of hazardous wastes at that unit if:

(1) The owner or operator submits an amended part B application, or a part B application, if not previously required, and demonstrates that:

(i) The unit has the existing design capacity as indicated on the part A application to receive non-hazardous wastes; and

(ii) There is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes; and

(iii) The non-hazardous wastes will not be incompatible with any remaining wastes in the unit or with the facility design and operating requirements of the unit or facility under Rule R315-265; and

(iv) Closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

(v) The owner or operator is operating and will continue to operate in compliance with all applicable interim status requirements; and

(2) The part B application includes an amended waste analysis plan, ground-water monitoring and response program, human exposure assessment required under RCRA section 3019, and closure and post-closure plans, and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year of closure if applicable under Subsection R315-265-112(b)(7), as a result of the receipt of non-hazardous wastes following the final receipt of hazardous

wastes; and

(3) The part B application is amended, as necessary and appropriate, to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes; and

(4) The part B application and the demonstrations referred to in Subsections R315-265-113(d)(1) and (d)(2) are submitted to the Director no later than 180 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes, or no later than 90 days after the effective date of Rule R315-265, whichever is later.

(e) In addition to the requirements in Subsection R315-265-113(d), an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in 42 U.S.C. 3004(o)(1) and 3005(j)(1) or 42 U.S.C. 3004(o)(2) or (3) or 3005(j) (2), (3), (4) or (13) shall:

(1) Submit with the part B application:

(i) A contingent corrective measures plan; and

(ii) A plan for removing hazardous wastes in compliance with Subsection R315-265-113(e)(2); and

(2) Remove all hazardous wastes from the unit by removing all hazardous liquids and removing all hazardous sludges to the extent practicable without impairing the integrity of the liner(s), if any.

(3) Removal of hazardous wastes shall be completed no later than 90 days after the final receipt of hazardous wastes. The Director may approve an extension to this deadline if the owner or operator demonstrates that the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.

(4) If a release that is a statistically significant increase, or decrease in the case of pH, in hazardous constituents over background levels is detected in accordance with the requirements in Sections R315-265-90 through 265-94, the owner or operator of the unit:

(i) Shall implement corrective measures in accordance with the approved contingent corrective measures plan required by Subsection R315-265-113(e)(1) no later than one year after detection of the release, or approval of the contingent corrective measures plan, whichever is later;

(ii) May receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and

(iii) May be required by the Director to implement corrective measures in less than one year or to cease receipt of wastes until corrective measures have been implemented if necessary to protect human health and the environment.

(5) During the period of corrective action, the owner or operator shall provide annual reports to the Director describing the progress of the corrective action program, compile all ground-water monitoring data, and evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

(6) The Director may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in Subsection R315-265-113(e)(4), or fails to make substantial progress in implementing corrective action and achieving the facility's background levels.

(7) If the owner or operator fails to implement corrective measures as required in Subsection R315-265-113(e)(4), or if the Director determines that substantial progress has not been made pursuant to Subsection R315-265-113(e)(6) he shall:

(i) Notify the owner or operator in writing that the owner or operator shall begin closure in accordance with the deadline in Subsections R315-265-113(a) and (b) and provide a detailed statement of reasons for this determination, and

(ii) Provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the decision no later than 20 days after the date of the notice.

(iii) If the Director receives no written comments, the decision will become final five days after the close of the comment period. The Director will notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, shall be submitted within 15 days of the final notice and that closure shall begin in accordance with the deadlines in Subsections R315-265-113(a) and (b).

(iv) If the Director receives written comments on the decision, he shall make a final decision within 30 days after the end of the comment period, and provide the owner or operator in writing and the public through a newspaper notice, a detailed statement of reasons for the final decision. If the Director determines that substantial progress has not been made, closure shall be initiated in accordance with the deadlines in Subsections R315-265-113(a) and (b).

(v) The final determinations made by the Director under Subsections R315-265-113(e)(7)(iii) and (iv) are not subject to administrative appeal.

R315-265-114. Closure and Post-Closure -- Disposal or Decontamination of Equipment, Structures and Soils.

During the partial and final closure periods, all contaminated equipment, structures and soil shall be properly disposed of, or decontaminated unless specified otherwise in Sections R315-265-197, 265-228, 265-258, or 40 CFR 265.280, or 265.310, which are adopted and incorporated by reference. By removing all hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and shall handle that hazardous waste in accordance with all applicable requirements of Rule R315-262.

R315-265-115. Closure and Post-Closure -- Certification of Closure.

Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of completion of final closure, the owner or operator shall submit to the Director, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification shall be signed by the owner or operator and by a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification shall be furnished to the Director upon request until he releases the owner or operator from the financial assurance requirements for closure under Subsection R315-265-143(h).

R315-265-116. Closure and Post-Closure -- Survey Plat.

No later than the submission of the certification of closure of each hazardous waste disposal unit, an owner or operator shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Director, a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat shall be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use shall contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable regulations in Sections R315-265-110 through 265-121.

R315-265-117. Closure and Post-Closure -- Post-Closure Care and Use of Property.

(a)(1) Post-closure care for each hazardous waste management unit subject to the requirements of Sections R315-265-117 through 265-120 shall begin after completion of closure of the unit and continue for 30 years after that date. It shall consist of at least the following:

(i) Monitoring and reporting in accordance with the requirements of Sections R315-265-90 through 265-94, R315-265-220 through 265-231, R315-265-250 through 265-260, and subparts M, and N of 40 CFR 265, which are adopted and incorporated by reference; and

(ii) Maintenance and monitoring of waste containment systems in accordance with the requirements of Sections R315-265-90 through 265-94, R315-265-220 through 265-231, R315-265-250 through 265-260, and subparts M, and N of 40 CFR 265, which are adopted and incorporated by reference.

(2) Any time preceding closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure period for a particular hazardous waste disposal unit, the Director may:

(i) Shorten the post-closure care period applicable to the hazardous waste management unit, or facility, if all disposal units have been closed, if he finds that the reduced period is sufficient to protect human health and the environment, for example, leachate or ground-water monitoring results, characteristics of the hazardous waste, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure; or

(ii) Extend the post-closure care period applicable to the hazardous waste management unit or facility, if he finds that the extended period is necessary to protect human health and the environment, for example, leachate or ground-water monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment.

(b) The Director may require, at partial and final closure, continuation of any of the security requirements of Section R315-265-14 during part or all of the post-closure period when:

(1) Hazardous wastes may remain exposed after completion of partial or final closure; or

(2) Access by the public or domestic livestock may pose a hazard to human health.

(c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure shall never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the facility's monitoring systems, unless the Director finds that the disturbance:

(1) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

(2) Is necessary to reduce a threat to human health or the environment.

(d) All post-closure care activities shall be in accordance with the provisions of the approved post-closure plan as specified in Section R315-265-118.

R315-265-118. Closure and Post-Closure -- Post-Closure Plan; Amendment of Plan.

(a) Written plan. By May 19, 1981, the owner or operator of a hazardous waste disposal unit shall have a written post-closure plan. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous wastes at closure shall prepare a post-closure plan and submit it to the Director within 90 days of the date that the owner or operator or Director determines that the hazardous waste management unit or facility shall be closed as a landfill, subject to the requirements of Sections R315-265-117 through 265-120.

(b) Until final closure of the facility, a copy of the most current post-closure plan shall be furnished to the Director upon request, including request by mail. In addition, for facilities without approved post-closure plans, it shall also be provided during site inspections, on the day of inspection, to any officer, employee or representative of the Director. After final closure has been certified, the person or office specified in Subsection R315-265-118(c)(3) shall keep the approved post-closure plan during the post-closure period.

(c) For each hazardous waste management unit subject to the requirements of this Section R315-265-118, the post-closure plan shall identify the activities that will be carried on after closure of each disposal unit and the frequency of these activities, and include at least:

(1) A description of the planned monitoring activities and frequencies at which they will be performed to comply with Sections R315-265-90 through 265-94, R315-265-220 through 265-231, R315-265-250 through 265-260, and subparts M, and N of 40 CFR 265, which are adopted and incorporated by reference, during the post-closure care period; and

(2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure:

(i) The integrity of the cap and final cover or other containment systems in accordance with the requirements of Sections R315-265-90 through 265-94, R315-265-220 through 265-231, R315-265-250 through 265-260, and subparts M, and N of 40 CFR 265, which are adopted and incorporated by reference; and

(ii) The function of the monitoring equipment in accordance with the requirements of Sections R315-265-90 through 265-94,

R315-265-220 through 265-231, R315-265-250 through 265-260, and subparts M, and N of 40 CFR 265, which are adopted and incorporated by reference; and

(3) The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

(4) For facilities subject to Section R315-265-121, provisions that satisfy the requirements of Subsections R315-265-121(a)(1) and (3).

(5) For facilities where the Director has applied alternative requirements at a regulated unit under Subsections R315-265-90(f), R315-265-110(d), R315-265-140(d), or all three, either the alternative requirements that apply to the regulated unit, or a reference to the enforceable document containing those requirements.

(d) Amendment of plan. The owner or operator may amend the post-closure plan any time during the active life of the facility or during the post-closure care period. An owner or operator with an approved post-closure plan shall submit a written request to the Director to authorize a change to the approved plan. The written request shall include a copy of the amended post-closure plan for approval by the Director.

(1) The owner or operator shall amend the post-closure plan whenever:

(i) Changes in operating plans or facility design affect the post-closure plan, or

(ii) Events which occur during the active life of the facility, including partial and final closures, affect the post-closure plan.

(iii) The owner or operator requests the Director to apply alternative requirements to a regulated unit under Subsections R315-265.90(f), R315-265.110(d), R315-265.140(d) or all three.

(2) The owner or operator shall amend the post-closure plan at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan.

(3) An owner or operator with an approved post-closure plan shall submit the modified plan to the Director at least 60 days prior to the proposed change in facility design or operation, or no more than 60 days after an unexpected event has occurred which has affected the post-closure plan. If an owner or operator of a surface impoundment or a waste pile who intended to remove all hazardous wastes at closure in accordance with Subsections R315-265-228(b) or R315-265-258(a) is required to close as a landfill in accordance with 40 CFR 265.310, which is adopted and incorporated by reference, the owner or operator shall submit a post-closure plan within 90 days of the determination by the owner or operator or Director that the unit shall be closed as a landfill. If the amendment to the post-closure plan is a Class 2 or 3 modification according to the criteria in Section R315-270-42, the modification to the plan will be approved according to the procedures in Subsection R315-265-118(f).

(4) The Director may request modifications to the plan under the conditions described in Section R315-265-118(d)(1). An owner or operator with an approved post-closure plan shall submit the modified plan no later than 60 days of the request from the Director. If the amendment to the plan is considered a Class 2 or 3 modification according to the criteria in Section R315-270-42, the modifications to the post-closure plan will be approved in accordance with the procedures in Subsection R315-265-118(f). If the Director determines that an owner or operator of a surface impoundment or waste pile who intended to remove all hazardous wastes at closure shall close the facility as a landfill, the owner or operator shall submit a post-closure plan for approval to the Director within 90 days of the determination.

(e) The owner or operator of a facility with hazardous waste management units subject to these requirements shall submit his post-closure plan to the Director at least 180 days before the date he expects to begin partial or final closure of the first hazardous waste disposal unit. The date he "expects to begin closure" of the first hazardous waste disposal unit shall be either within 30 days after the date on which the hazardous waste management unit receives the known final volume of hazardous waste or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. The owner or operator shall submit the post-closure plan to the Director no later than 15 days after:

(1) Termination of interim status, except when a permit is issued to the facility simultaneously with termination of interim status; or

(2) Issuance of a judicial decree or final orders under section 3008 of RCRA to cease receiving wastes or close.

(f) The Director will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the post-closure plan and request modifications to the plan no later than 30 days from the date of the notice. He will also, in response to a request or at his own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a post-closure plan. The Director will give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined. The Director will approve, modify, or disapprove the plan within 90 days of its receipt. If the Director does not approve the plan he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator shall modify the plan or submit a new plan for approval within 30 days after receiving such written statement. The Director will approve or modify this plan in writing within 60 days. If the Director modifies the plan, this modified plan becomes the approved post-closure plan. The Director shall ensure that the approved post-closure plan is consistent with Sections R315-265-117 through 265-120. A copy of the modified plan with a detailed statement of reasons for the modifications shall be mailed to the owner or operator.

(g) The post-closure plan and length of the post-closure care period may be modified any time prior to the end of the post-closure care period in either of the following two ways:

(1) The owner or operator or any member of the public may petition the Director to extend or reduce the post-closure care period applicable to a hazardous waste management unit or facility based on cause, or alter the requirements of the post-closure care period based on cause.

(i) The petition shall include evidence demonstrating that:

(A) The secure nature of the hazardous waste management unit or facility makes the post-closure care requirement(s) unnecessary

or supports reduction of the post-closure care period specified in the current post-closure plan, for example, leachate or ground-water monitoring results, characteristics of the wastes, application of advanced technology, or alternative disposal, treatment, or re-use techniques indicate that the facility is secure, or

(B) The requested extension in the post-closure care period or alteration of post-closure care requirements is necessary to prevent threats to human health and the environment, e.g., leachate or ground-water monitoring results indicate a potential for migration of hazardous wastes at levels which may be harmful to human health and the environment.

(ii) These petitions will be considered by the Director only when they present new and relevant information not previously considered by the Director. Whenever the Director is considering a petition, he will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice. He will also, in response to a request or at his own discretion, hold a public hearing whenever a hearing might clarify one or more issues concerning the post-closure plan. The Director will give the public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for written public comments, and the two notices may be combined. After considering the comments, he will issue a final determination, based upon the criteria set forth in Subsection R315-265-118(g)(1).

(iii) If the Director denies the petition, he will send the petitioner a brief written response giving a reason for the denial.

(2) The Director may tentatively decide to modify the post-closure plan if he deems it necessary to prevent threats to human health and the environment. He may propose to extend or reduce the post-closure care period applicable to a hazardous waste management unit or facility based on cause or alter the requirements of the post-closure care period based on cause.

(i) The Director will provide the owner or operator and the affected public, through a newspaper notice, the opportunity to submit written comments within 30 days of the date of the notice and the opportunity for a public hearing as in Subsection R315-265-118(g)(1)(ii). After considering the comments, he will issue a final determination.

(ii) The Director will base his final determination upon the same criteria as required for petitions under Subsection R315-265-118(g)(1)(i). A modification of the post-closure plan may include, where appropriate, the temporary suspension rather than permanent deletion of one or more post-closure care requirements. At the end of the specified period of suspension, the Director would then determine whether the requirement(s) should be permanently discontinued or reinstated to prevent threats to human health and the environment.

R315-265-119. Closure and Post-Closure -- Post-Closure Notices.

(a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator shall submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Director, a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator shall identify the type, location and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.

(b) Within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the owner or operator shall:

(1) Record, in accordance with Utah law, a notation on the deed to the facility property---or on some other instrument which is normally examined during title search---that will in perpetuity notify any potential purchaser of the property that:

(i) The land has been used to manage hazardous wastes; and

(ii) Its use is restricted under regulations in Sections R315-265-110 through 265-121; and

(iii) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by Section R315-265-116 and Subsection R315-265-119(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Director; and

(2) Submit a certification signed by the owner or operator that he has recorded the notation specified in Subsection R315-265-119(b)(1) and a copy of the document in which the notation has been placed, to the Director.

(c) If the owner or operator or any subsequent owner of the land upon which a hazardous waste disposal unit was located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, and all contaminated structures, equipment, and soils, he shall request a modification to the approved post-closure plan in accordance with the requirements of Subsection R315-265-118(g). The owner or operator shall demonstrate that the removal of hazardous wastes will satisfy the criteria of Subsection R315-265-117(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and shall manage it in accordance with all applicable requirements of Rules R315-260 through 266, R315-268, R315-270 and R315-273. If the owner or operator is granted approval to conduct the removal activities, the owner or operator may request that the Director approve either:

(1) The removal of the notation on the deed to the facility property or other instrument normally examined during title search, or

(2) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

R315-265-120. Closure and Post-Closure -- Certification of Completion of Post-Closure Care.

No later than 60 days after the completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator shall submit to the Director, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification shall be signed by the owner or operator and a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification shall be furnished to the Director upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under Subsection R315-265-145(h).

R315-265-121. Closure and Post-Closure -- Post-Closure Requirements for Facilities that Obtain Enforceable Documents in Lieu of Post-Closure Permits.

(a) Owners and operators who are subject to the requirement to obtain a post-closure permit under Subsection R315-270-1(c), but who obtain enforceable documents in lieu of post-closure permits, as provided under Subsection R315-270-1(c)(7), shall comply with the following requirements:

(1) The requirements to submit information about the facility in Section R315-270-28;

(2) The requirements for facility-wide corrective action in Section R315-264-101;

(3) The requirements of Sections R315-264-91 through 264-100.

(b)(1) The Director, in issuing enforceable documents under Section R315-265-121 in lieu of permits, will assure a meaningful opportunity for public involvement which, at a minimum, includes public notice and opportunity for public comment:

(i) When the Director becomes involved in a remediation at the facility as a regulatory or enforcement matter;

(ii) On the proposed preferred remedy and the assumptions upon which the remedy is based, in particular those related to land use and site characterization; and

(iii) At the time of a proposed decision that remedial action is complete at the facility. These requirements shall be met before the Director may consider that the facility has met the requirements of Subsection R315-270-1(c)(7), unless the facility qualifies for a modification to these public involvement procedures under Subsections R315-265-121(b)(2) or (3).

(2) If the Director determines that even a short delay in the implementation of a remedy would adversely affect human health or the environment, the Director may delay compliance with the requirements of Subsection R315-265-121(b)(1) and implement the remedy immediately. However, the Director shall assure involvement of the public at the earliest opportunity, and, in all cases, upon making the decision that additional remedial action is not needed at the facility.

(3) The Director may allow a remediation initiated prior to October 22, 1998 to substitute for corrective action required under a post-closure permit even if the public involvement requirements of Subsection R315-265-121(b)(1) have not been met so long as the Director assures that notice and comment on the decision that no further remediation is necessary to protect human health and the environment takes place at the earliest reasonable opportunity after October 22, 1998.

R315-265-140. Financial Requirements -- Applicability.

(a) The requirements of Sections R315-265-142, R315-265-143, R315-265-147 and R315-265-148 apply to owners or operators of all hazardous waste facilities, except as provided otherwise in this Section R315-265-140 or in Section R315-265-1.

(b) The requirements of Sections R315-265-144 and R315-265-145 apply only to owners and operators of:

(1) Disposal facilities;

(2) Tank systems that are required under Section R315-265-197 to meet the requirements for landfills; and

(3) Containment buildings that are required under 40 CFR 265.1102, which is adopted and incorporated by reference, to meet the requirements for landfills.

(c) States and the Federal government are exempt from the requirements of Sections R315-265-140 through 265-148.

(d) The Director may replace all or part of the requirements of Sections R315-265-140 through 265-148 applying to a regulated unit with alternative requirements for financial assurance set out in the permit or in an enforceable document, as defined in Subsection R315-270-1(c)(7), where the Director:

(1) Prescribes alternative requirements for the regulated unit under Subsection R315-265-90(f), Subsection R315-265-110(d), or both, and

(2) Determines that it is not necessary to apply the requirements of Sections R315-265-140 through 265-148 because the alternative financial assurance requirements will protect human health and the environment.

R315-265-141. Financial Requirements -- Definitions of Terms as Used in Sections R315-265-140 through R315-265-148.

(a) Closure plan means the plan for closure prepared in accordance with the requirements of Section R315-265-112.

(b) Current closure cost estimate means the most recent of the estimates prepared in accordance with Subsections R315-265-142(a), (b), and (c).

(c) Current post-closure cost estimate means the most recent of the estimates prepared in accordance with Subsections R315-265-144(a), (b), and (c).

(d) Parent corporation means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(e) Post-closure plan means the plan for post-closure care prepared in accordance with the requirements of Sections R315-265-117 through 265-120.

(f) The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

Assets means all existing and all probable future economic benefits obtained or controlled by a particular entity.

Current assets means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

Current liabilities means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

Current plugging and abandonment cost estimate means the most recent of the estimates prepared in accordance with 40 CFR 144.62(a), (b), and (c).

Independently audited refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

Liabilities means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

Net working capital means current assets minus current liabilities.

Net worth means total assets minus total liabilities and is equivalent to owner's equity.

Tangible net worth means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(g) In the liability insurance requirements the terms bodily injury and property damage shall have the meanings given these terms by applicable Utah law. However, these terms do not include those liabilities which, consistent with standard industry practice, are excluded from coverage in liability policies for bodily injury and property damage. The Director intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

Accidental occurrence means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

Legal defense costs means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

Nonsudden accidental occurrence means an occurrence which takes place over time and involves continuous or repeated exposure.

Sudden accidental occurrence means an occurrence which is not continuous or repeated in nature.

(h) Substantial business relationship means the extent of a business relationship necessary under applicable Utah law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the Director.

R315-265-142. Financial Requirements -- Cost Estimate for Closure.

(a) The owner or operator shall have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in Sections R315-265-111 through R315-265-115 and applicable closure requirements in Sections R315-265-197, R315-265-228, R315-265-258, and 40 CFR 265.280, 265.310, 265.351, 265.381, 265.404, and 265.1102, which are adopted and incorporated by reference.

(1) The estimate shall equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan, see Subsection R315-265-112(b); and

(2) The closure cost estimate shall be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. See definition of parent corporation in Subsection R315-265-141(d). The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

(3) The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes if applicable under Subsection R315-265-113(d), facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

(4) The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes if applicable under Subsection R315-265-113(d), that might have economic value.

(b) During the active life of the facility, the owner or operator shall adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section R315-265-143. For owners and operators using the financial test or corporate guarantee, the closure cost estimate shall be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Director as specified in Subsection R315-265-143(e)(3). The adjustment may be made by recalculating the closure cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in Subsections R315-265-142(b)(1) and (2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the closure cost estimate no later than 30 days after a revision has been made to the closure plan which increases the cost of closure. If the owner or operator has an approved closure plan, the closure cost estimate shall be revised no later than 30 days after the Director has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate shall be adjusted for inflation as specified in Subsection R315-265-142(b).

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with Subssections R315-265-142(a) and (c) and, when this estimate has been adjusted in accordance with Subsection R315-265-142(b), the latest adjusted closure cost estimate.

R315-265-143. Financial Requirements -- Financial Assurance for Closure.

By the effective date of these regulations, an owner or operator of each facility shall establish financial assurance for closure of the

facility. He shall choose from the options as specified in Subsections R315-265-143(a) through (e).

(a) Closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-265-143 by establishing a closure trust fund which conforms to the requirements of Subsection R315-265-143(a) and submitting an originally signed duplicate of the trust agreement to the Director. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or Utah agency.

(2) The wording of the trust agreement shall be identical to the wording specified in Subsection R315-264-151(a)(1), and the trust agreement shall be accompanied by a formal certification of acknowledgment, for example, see Subsection R315-264-151(a)(2). Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current closure cost estimate covered by the agreement.

(3) Payments into the trust fund shall be made annually by the owner or operator over the 20 years beginning with the effective date of these regulations or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the closure trust fund shall be made as follows:

(i) The first payment shall be made by the effective date of these regulations, except as provided in Subsection R315-265-143(a)(5). The first payment shall be at least equal to the current closure cost estimate, except as provided in Subsection R315-265-143(f), divided by the number of years in the pay-in period.

(ii) Subsequent payments shall be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment shall be determined by this formula: Next payment=(CE-CV)/Y, where CE is the current closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current closure cost estimate at the time the fund is established. However, he shall maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in Subsection R315-265-143(a)(3).

(5) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in Section R315-265-143, his first payment shall be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in Subsection R315-265-143(a)(3).

(6) After the pay-in period is completed, whenever the current closure cost estimate changes, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current closure cost estimate, or obtain other financial assurance as specified in Section R315-265-143 to cover the difference.

(7) If the value of the trust fund is greater than the total amount of the current closure cost estimate, the owner or operator may submit a written request to the Director for release of the amount in excess of the current closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in Section R315-265-143 for all or part of the trust fund, he may submit a written request to the Director for release of the amount in excess of the current closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in Subsections R315-265-143(a) (7) or (8), the Director will instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

(10) After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursements for partial or final closure expenditures by submitting itemized bills to the Director. The owner or operator may request reimbursements for partial closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. No later than 60 days after receiving bills for partial or final closure activities, the Director will instruct the trustee to make reimbursements in those amounts as the Director specifies in writing, if the Director determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, he may withhold reimbursements of such amounts as he deems prudent until he determines, in accordance with Subsection R315-265-143(h) that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. If the Director does not instruct the trustee to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

(11) The Director will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-265-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-265-143 in accordance with Subsection R315-265-143(h).

(b) Surety bond guaranteeing payment into a closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-265-143 by obtaining a surety bond which conforms to the requirements of this paragraph and submitting the bond to the Director. The surety company issuing the bond shall, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond shall be identical to the wording specified in Subsection R315-264-151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of Section R315-265-143 shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements specified in Subsection R315-265-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of Section R315-265-143, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-265-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Director becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in Section R315-265-143, and obtain the Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current closure cost estimate, except as provided in Subsection R315-265-143(f).

(7) Whenever the current closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-265-143 to cover the increase. Whenever the current closure cost estimate decreases, the penal sum may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Director has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in Section R315-265-143.

(c) Closure letter of credit.

(1) An owner or operator may satisfy the requirements of Section R315-265-143 by obtaining an irrevocable standby letter of credit which conforms to the requirements of Subsection R315-265-143(c) and submitting the letter to the Director. The issuing institution shall be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or Utah agency.

(2) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-264-151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-265-143 shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements of the trust fund specified in Subsection R315-265-143(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-265-143, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-265-143(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The EPA Identification Number, name, and address of the facility, and the amount of funds assured for closure of the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least 1 year. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least 1 year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Director have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current closure cost estimate, except as provided in Subsection R315-265-143(f).

(7) Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-265-143 to cover the increase. Whenever the current closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(8) Following a final administrative determination that the owner or operator has failed to perform final closure in accordance

with the approved closure plan when required to do so, the Director may draw on the letter of credit.

(9) If the owner or operator does not establish alternate financial assurance as specified in Section R315-265-143 and obtain written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Director will draw on the letter of credit. The Director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Director will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in Section R315-265-143 and obtain written approval of such assurance from the Director.

(10) The Director will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-265-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-265-143 in accordance with Subsection R315-265-143(h).

(d) Closure insurance.

(1) An owner or operator may satisfy the requirements of Section R315-265-143 by obtaining closure insurance which conforms to the requirements of Subsection R315-265-143(d) and submitting a certificate of such insurance to the Director. By the effective date of these regulations the owner or operator shall submit to the Director a letter from an insurer stating that the insurer is considering issuance of closure insurance conforming to the requirements of this paragraph to the owner or operator. Within 90 days after the effective date of these regulations, the owner or operator shall submit the certificate of insurance to the Director or establish other financial assurance as specified in Section R315-265-143. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(e).

(3) The closure insurance policy shall be issued for a face amount at least equal to the current closure cost estimate, except as provided in Subsection R315-265-143(f). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The closure insurance policy shall guarantee that funds will be available to close the facility whenever final closure occurs. The policy shall also guarantee that once final closure begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Director, to such party or parties as the Director specifies.

(5) After beginning partial or final closure, an owner or operator or any other person authorized to conduct closure may request reimbursements for closure expenditures by submitting itemized bills to the Director. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for closure activities, the Director will instruct the insurer to make reimbursements in such amounts as the Director specifies in writing if the Director determines that the partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the Director has reason to believe that the maximum cost of closure over the remaining life of the facility will be significantly greater than the face amount of the policy, he may withhold reimbursement of such amounts as he deems prudent until he determines, in accordance with Subsection R315-265-143(h), that the owner or operator is no longer required to maintain financial assurance for final closure of the particular facility. If the Director does not instruct the insurer to make such reimbursements, he will provide to the owner or operator a detailed written statement of reasons.

(6) The owner or operator shall maintain the policy in full force and effect until the Director consents to termination of the policy by the owner or operator as specified in Subsection R315-265-143(d)(10). Failure to pay the premium, without substitution of alternate financial assurance as specified in this section, will constitute a significant violation of these regulations, warranting such remedy as the Director deems necessary. Such violation will be deemed to begin upon receipt by the Director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Director and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Director deems the facility abandoned; or

(ii) Interim status is terminated or revoked; or

(iii) Closure is ordered by the Director or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current closure cost estimate increases to an amount greater than the face amount of the policy, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-265-143 to cover the increase. Whenever the current closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the Director.

(10) The Director will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-265-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-265-143 in accordance with Subsection R315-265-143(h).

(e) Financial test and corporate guarantee for closure.

(1) An owner or operator may satisfy the requirements of Section R315-265-143 by demonstrating that he passes a financial test as specified in Subsection R315-265-143(e). To pass this test the owner or operator shall meet the criteria of either Subsection R315-265-143(e)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Two of the following three ratios: A ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in Subsection R315-265-143(e)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, for example see Subsection R315-264-151(f). The phrase "current plugging and abandonment cost estimates" as used in Subsection R315-265-143(e)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, for example see 40 CFR 144.70(f).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R314-264-151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in Subsection R315-265-143(e)(3) if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer shall send, by the effective date of these regulations, a letter to the Director. This letter from the chief financial officer shall:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, and current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in Subsection R315-265-143(e)(3); and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in Subsection R315-265-143(e)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information shall consist of all three items specified in Subsection R315-265-143(e)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-265-143(e)(1), he shall send notice to the Director of intent to establish alternate financial assurance as specified in this section. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of Subsection R315-265-143(e)(1), require reports of financial condition at any time from the owner or operator in addition to those specified in

Subsection R315-265-143(e)(3). If the Director finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of Subsection R315-265-143(e)(1), the owner or operator shall provide alternate financial assurance as specified in Section R315-265-143 within 30 days after notification of such a finding.

(8) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-265-143(e)(3)(ii). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Director will evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in this section within 30 days after notification of the disallowance.

(9) The owner or operator is no longer required to submit the items specified in Subsection R315-265-143(e)(3) when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-265-143; or

(ii) The Director releases the owner or operator from the requirements of Section R315-265-143 in accordance with Subsection R315-265-143(h).

(10) An owner or operator may meet the requirements of Section R315-265-143 by obtaining a written guarantee. The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsections R315-265-143(e)(1) through (8) and shall comply with the terms of the guarantee. The wording of the guarantee shall be identical to the wording specified in Subsection R315-264-151(h). A certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-265-143(e)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter shall describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee shall provide that:

(i) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the closure plan and other interim status requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in Subsection R315-265-143(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in Section R315-265-143 and obtain the written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of Section R315-265-143 by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms shall be as specified in Subsections R315-265-143(a) through (d), respectively, except that it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Director may use any or all of the mechanisms to provide for closure of the facility.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in Section R315-265-143 to meet the requirements of Section R315-265-143 for more than one facility. Evidence of financial assurance submitted to the Director shall include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for closure assured by the mechanism. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for closure of any of the facilities covered by the mechanism, the Director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) Release of the owner or operator from the requirements of Section R315-265-143. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that final closure has been completed in accordance with the approved closure plan, the Director will notify the owner or operator in writing that he is no longer required by Section R315-265-143 to maintain financial assurance for final closure of the facility, unless the Director has reason to believe that final closure has not been in accordance with the approved closure plan. The Director shall provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan.

R315-265-144. Financial Requirements -- Cost Estimate for Post-Closure Care.

(a) The owner or operator of a hazardous waste disposal unit shall have a detailed written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in Sections R315-265-117 through R315-265-120, R315-265-228, R315-265-258, and 40 CFR 265.280 and 265.310, which are adopted and incorporated by reference.

(1) The post-closure cost estimate shall be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor subsidiary of the owner or operator. See definition of parent corporation in Subsection R315-265-141(d).

(2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of

post-closure care required under Section R315-265-117.

(b) During the active life of the facility, the owner or operator shall adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section R315-265-145. For owners or operators using the financial test or corporate guarantee, the post-closure care cost estimate shall be updated for inflation no later than 30 days after the close of the firm's fiscal year and before submission of updated information to the Director as specified in Subsection R315-265-145(d)(5). The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business as specified in Subsections R315-265-145(b)(1) and (2). The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

(c) During the active life of the facility, the owner or operator shall revise the post-closure cost estimate no later than 30 days after a revision to the post-closure plan which increases the cost of post-closure care. If the owner or operator has an approved post-closure plan, the post-closure cost estimate shall be revised no later than 30 days after the Director has approved the request to modify the plan, if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate shall be adjusted for inflation as specified in Subsection R315-265-144(b).

(d) The owner or operator shall keep the following at the facility during the operating life of the facility: the latest post-closure cost estimate prepared in accordance with Subsections R315-265-144(a) and (c) and, when this estimate has been adjusted in accordance with Subsection R315-265-144(b), the latest adjusted post-closure cost estimate.

R315-265-145. Financial Requirements -- Financial Assurance for Post-Closure Care.

By the effective date of these regulations, an owner or operator of a facility with a hazardous waste disposal unit must establish financial assurance for post-closure care of the disposal unit(s).

(a) Post-closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-265-145 by establishing a post-closure trust fund which conforms to the requirements of Subsection R315-265-145(a) and submitting an originally signed duplicate of the trust agreement to the Director. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or Utah agency.

(2) The wording of the trust agreement shall be identical to the wording specified in Subsection R315-264-151(a)(1), and the trust agreement shall be accompanied by a formal certification of acknowledgment, for example see Subsection R315-264-151(a)(2). Schedule A of the trust agreement shall be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.

(3) Payments into the trust fund shall be made annually by the owner or operator over the 20 years beginning with the effective date of these regulations or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund shall be made as follows:

(i) The first payment shall be made by the effective date of these regulations, except as provided in Subsection R315-265-145(a)(5). The first payment shall be at least equal to the current post-closure cost estimate, except as provided in Subsection R315-265-145(f), divided by the number of years in the pay-in period.

(ii) Subsequent payments shall be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by this formula: Next payment = (CE-CV)/Y, where CE is the current post-closure cost estimate, CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

(4) The owner or operator may accelerate payments into the trust fund or he may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, he shall maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in Subsection R315-265-145(a)(3).

(5) If the owner or operator establishes a post-closure trust fund after having used one or more alternate mechanisms specified in this section, his first payment shall be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made as specified in Subsection R315-265-145 (a)(3).

(6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator shall compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, shall either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance as specified in Section R315-265-145 to cover the difference.

(7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Director for release of the amount in excess of the current post-closure cost estimate.

(8) If an owner or operator substitutes other financial assurance as specified in this section for all or part of the trust fund, he may submit a written request to the Director for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.

(9) Within 60 days after receiving a request from the owner or operator for release of funds as specified in Subsections R315-265-145(a) (7) or (8), the Director will instruct the trustee to release to the owner or operator such funds as the Director specifies in writing.

(10) During the period of post-closure care, the Director may approve a release of funds if the owner or operator demonstrates to

the Director that the value of the trust fund exceeds the remaining cost of post-closure care.

(11) An owner or operator or any other person authorized to conduct post-closure care may request reimbursements for post-closure expenditures by submitting itemized bills to the Director. Within 60 days after receiving bills for post-closure care activities, the Director will instruct the trustee to make reimbursements in those amounts as the Director specifies in writing, if the Director determines that the post-closure expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Director does not instruct the trustee to make such reimbursements, he will provide the owner or operator with a detailed written statement of reasons.

(12) The Director will agree to termination of the trust when:

(i) An owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The Director releases the owner or operator from the requirements of Section R315-265-145 in accordance with Subsection R315-265-145(h).

(b) Surety bond guaranteeing payment into a post-closure trust fund.

(1) An owner or operator may satisfy the requirements of Section R315-265-145 by obtaining a surety bond which conforms to the requirements of Subsection R315-265-145(b) and submitting the bond to the Director. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury.

(2) The wording of the surety bond must be identical to the wording specified in Subsection R315-264-151(b).

(3) The owner or operator who uses a surety bond to satisfy the requirements of this section shall also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund shall meet the requirements specified in Subsection R315-265-145(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the surety bond; and

(ii) Until the standby trust fund is funded pursuant to the requirements of Section R315-265-145, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-265-145(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

(4) The bond shall guarantee that the owner or operator will:

(i) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility; or

(ii) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an administrative order to begin final closure issued by the Director becomes final, or within 15 days after an order to begin final closure is issued by a U.S. district court or other court of competent jurisdiction; or

(iii) Provide alternate financial assurance as specified in Section R315-265-145, and obtain the Director's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the bond from the surety.

(5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) The penal sum of the bond shall be in an amount at least equal to the current post-closure cost estimate, except as provided in Subsection R315-265-145(f).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-265-145 to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(9) The owner or operator may cancel the bond if the Director has given prior written consent based on his receipt of evidence of alternate financial assurance as specified in Section R315-265-145.

(c) Post-closure letter of credit.

(1) An owner or operator may satisfy the requirements of Section R315-265-145 by obtaining an irrevocable standby letter of credit which conforms to the requirements of Subsection R315-265-145(c) and submitting the letter to the Director. The issuing institution shall be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or Utah agency.

(2) The wording of the letter of credit shall be identical to the wording specified in Subsection R315-264-151(d).

(3) An owner or operator who uses a letter of credit to satisfy the requirements of this section shall also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director. This standby trust fund must meet the requirements of the trust fund specified in Subsection R315-265-145(a), except that:

(i) An originally signed duplicate of the trust agreement shall be submitted to the Director with the letter of credit; and

(ii) Unless the standby trust fund is funded pursuant to the requirements of Section R315-265-145, the following are not required by these regulations:

(A) Payments into the trust fund as specified in Subsection R315-265-145(a);

(B) Updating of Schedule A of the trust agreement, see Subsection R315-264-151(a), to show current post-closure cost estimates;

(C) Annual valuations as required by the trust agreement; and

(D) Notices of nonpayment as required by the trust agreement.

4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: The EPA Identification Number, name, and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

(5) The letter of credit shall be irrevocable and issued for a period of at least one year. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Director by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Director have received the notice, as evidenced by the return receipts.

(6) The letter of credit shall be issued in an amount at least equal to the current post-closure cost estimate, except as provided in Subsection R315-265-145(f).

(7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-265-145 to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(8) During the period of post-closure care, the Director may approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Director that the amount exceeds the remaining cost of post-closure care.

(9) Following a final administrative determination that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Director may draw on the letter of credit.

(10) If the owner or operator does not establish alternate financial assurance as specified in Section R315-265-145 and obtain written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice from the issuing institution that it has decided not to extend the letter of credit beyond the current expiration date, the Director will draw on the letter of credit. The Director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the last 30 days of any such extension the Director will draw on the letter of credit if the owner or operator has failed to provide alternate financial assurance as specified in Section R315-265-145 and obtain written approval of such assurance from the Director.

(11) The Director will return the letter of credit to the issuing institution for termination when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-265-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-265-145 in accordance with Subsection R315-265-145(h).

(d) Post-closure insurance.

(1) An owner or operator may satisfy the requirements of Section R315-265-145 by obtaining post-closure insurance which conforms to the requirements of Subsection R315-265-145(d) and submitting a certificate of such insurance to the Director. By the effective date of these regulations the owner or operator shall submit to the Director a letter from an insurer stating that the insurer is considering issuance of post- closure insurance conforming to the requirements of Subsection R315-265-145(d) to the owner or operator. Within 90 days after the effective date of these regulations, the owner or operator shall submit the certificate of insurance to the Director or establish other financial assurance as specified in Section R315-265-145. At a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(e).

(3) The post-closure insurance policy shall be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in Subsection R315-265-145(f). The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

(4) The post-closure insurance policy shall guarantee that funds will be available to provide post-closure care of the facility whenever the post-closure period begins. The policy shall also guarantee that once post-closure care begins the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Director, to such party or parties as the Director specifies.

(5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Director. Within 60 days after receiving bills for post-closure care activities, the Director will instruct the insurer to make reimbursements in those amounts as the Director specifies in writing, if the Director determines that the post-closure expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Director does not instruct the insurer to make such reimbursements, he will provide a detailed written statement of reasons.

(6) The owner or operator shall maintain the policy in full force and effect until the Director consents to termination of the policy by the owner or operator as specified in Subsection R315-265-145(d)(11). Failure to pay the premium, without substitution of alternate financial assurance as specified in the section, will constitute a significant violation of these regulations, warranting such remedy as the Director deems necessary. Such violation will be deemed to begin upon receipt by the Director of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.

(7) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment

may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

(8) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Director. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Director and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur and the policy will remain in full force and effect in the event that on or before the date of expiration:

(i) The Director deems the facility abandoned; or

(ii) Interim status is terminated or revoked; or

(iii) Closure is ordered by the Director or a U.S. district court or other court of competent jurisdiction; or

(iv) The owner or operator is named as debtor in a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code; or

(v) The premium due is paid.

(9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the operating life of the facility, the owner or operator, within 60 days after the increase, shall either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Director, or obtain other financial assurance as specified in Section R315-265-145 to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Director.

(10) Commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase shall be equivalent to the face amounts of the policy, less any payments made, multiplied by an amount equivalent to 85 percent of the most recent investment rate or of the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

(11) The Director will give written consent to the owner or operator that he may terminate the insurance policy when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-265-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-265-145 in accordance with Subsection R315-265-145(h).

(e) Financial test and corporate guarantee for post-closure care.

(1) An owner or operator may satisfy the requirements of Section R315-265-145 by demonstrating that he passes a financial test as specified in Subsection R315-265-145(e). To pass this test the owner or operator shall meet the criteria either of Subsections R315-265-145(e)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion, and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5; and

(B) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates; and

(C) Tangible net worth of at least $10 million; and

(D) Assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.

(2) The phrase "current closure and post-closure cost estimates" as used in Subsection R315-265-145(e)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, for example see Subsection R315-264-151(f). The phrase "current plugging and abandonment cost estimates" as used in Subsection R315-265-145(e)(1) refers to the cost estimates required to be shown in paragraphs 1-4 of the letter from the owner's or operator's chief financial officer, for example see 40 CFR 144.70(f).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-264-151(f); and

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should

be adjusted.

(4) The owner or operator may obtain an extension of the time allowed for submission of the documents specified in Subsection R315-265-145(e)(3) if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer shall send, by the effective date of these regulations, a letter to the Director. This letter from the chief financial officer shall:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, and the current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's latest complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in Subsection R315-265-145(e)(3); and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in Subsection R315-265-145(e)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in Subsection R315-265-145(e)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-265-145 (e)(1), he shall send notice to the Director of intent to establish alternate financial assurance as specified in Section R315-265-145. The notice shall be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator shall provide the alternate financial assurance within 120 days after the end of such fiscal year.

(7) The Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of Subsection R315-265-145(e)(1), require reports of financial condition at any time from the owner or operator in addition to those specified in Subsection R315-265-145(e)(3). If the Director finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of Subsection R315-265-145(e)(1), the owner or operator shall provide alternate financial assurance as specified in Section R315-265-145 within 30 days after notification of such a finding.

(8) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-265-145(e)(3)(ii). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Director will evaluate other qualifications on an individual basis. The owner or operator shall provide alternate financial assurance as specified in Section R315-265-145 within 30 days after notification of the disallowance.

(9) During the period of post-closure care, the Director may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Director that the amount of the cost estimate exceeds the remaining cost of post-closure care.

(10) The owner or operator is no longer required to submit the items specified in Subsection R315-265-145(e)(3) when:

(i) An owner or operator substitutes alternate financial assurance as specified in Section R315-265-145; or

(ii) The Director releases the owner or operator from the requirements of Section R315-265-145 in accordance with Subsection R315-265-145(h).

(11) An owner or operator may meet the requirements of Section R315-265-145 by obtaining a written guarantee. The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsections R315-265-145(e)(1) through (9) and shall comply with the terms of the guarantee. The wording of the guarantee shall be identical to the wording specified in Subsection R315-264-151(h). A certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-265-145(e)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter shall describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the guarantee must provide that:

(i) If the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other interim status requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in Subsection R315-265-145(a) in the name of the owner or operator.

(ii) The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director, as evidenced by the return receipts.

(iii) If the owner or operator fails to provide alternate financial assurance as specified in Section R315-265-145 and obtain the written approval of such alternate assurance from the Director within 90 days after receipt by both the owner or operator and the Director of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

(f) Use of multiple financial mechanisms. An owner or operator may satisfy the requirements of Section R315-265-145 by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds, letters of credit, and insurance. The mechanisms must be as specified in Subsections R315-265-145(a) through (d), respectively, of this section, except that

it is the combination of mechanisms, rather than the single mechanism, which shall provide financial assurance for an amount at least equal to the current post-closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The Director may use any or all of the mechanisms to provide for post-closure care of the facility.

(g) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in Section R315-265-145 to meet the requirements of Section R315-265-145 for more than one facility. Evidence of financial assurance submitted to the Director shall include a list showing, for each facility, the EPA Identification Number, name, address, and the amount of funds for post-closure care assured by the mechanism. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Director may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

(h) Release of the owner or operator from the requirements of Section R315-265-145. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Director will notify the owner or operator in writing that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the Director has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The Director shall provide the owner or operator a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

R315-265-146. Financial Requirements -- Use of a Mechansim for Financial Assurance of Both Closure and Post-Closure Care.

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both Sections R315-265-143 and R315-265-145. The amount of funds available through the mechanism shall be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for financial assurance of closure and of post-closure care.

R315-265-147. Financial Requirements -- Liability Requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in Subsections R315-265-147(a)(1), (2), (3), (4), (5), or (6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Subsection R315-265-147(a)(1).

(i) Each insurance policy shall be amended by attachment of the Hazardous Waste Facility Liability Endorsement, or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-264-151(i). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(j). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the Director. If requested by the Director, the owner or operator shall provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of Section R315-265-147 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-265-147(f) and (g).

(3) An owner or operator may meet the requirements of Section R315-265-147 by obtaining a letter of credit for liability coverage as specified in Subsection R315-265-147(h).

(4) An owner or operator may meet the requirements of Section R315-265-147 by obtaining a surety bond for liability coverage as specified in Subsection R315-265-147(i).

(5) An owner or operator may meet the requirements of Section R315-265-147 by obtaining a trust fund for liability coverage as specified in Subsection R315-265-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by Section R315-265-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under Subsection R315-265-147(a)(6), the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the Director in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in SubSections R315-265-147(a)(1) through (a)(6); or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-

party claimant for liability coverage under Subsections R315-265-147(a)(1) through (a)(6); or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-265-147(a)(1) through (a)(6).

(b) Coverage for nonsudden accidental occurrences. An owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste, or a group of such facilities, shall demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator shall have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of Section R315-265-147 may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences shall maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in Subsections R315-265-147(b)(1), (2), (3), (4), (5), or (6):

(1) An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in Subsection R315-265-147(b)(1).

(i) Each insurance policy shall be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement shall be identical to the wording specified in Subsection R315-264-151(i). The wording of the certificate of insurance shall be identical to the wording specified in Subsection R315-264-151(j). The owner or operator shall submit a signed duplicate original of the endorsement or the certificate of insurance to the Director. If requested by the Director, the owner or operator must provide a signed duplicate original of the insurance policy.

(ii) Each insurance policy shall be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

(2) An owner or operator may meet the requirements of Section R315-265-147 by passing a financial test or using the guarantee for liability coverage as specified in Subsections R315-265-147(f) and (g).

(3) An owner or operator may meet the requirements of Section R315-265-147 by obtaining a letter of credit for liability coverage as specified in Subsection R315-265-147(h).

(4) An owner or operator may meet the requirements of Section R315-265-147 by obtaining a surety bond for liability coverage as specified in Subsection R315-265-147(i).

(5) An owner or operator may meet the requirements of Section R315-265-147 by obtaining a trust fund for liability coverage as specified in Subsection R315-265-147(j).

(6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated shall total at least the minimum amounts required by Section R315-265-147. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under Subsection R315-265-147(b), the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

(7) An owner or operator shall notify the Director in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in Subsections R315-265-147(b)(1) through (b)(6); or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under Subsections R315-265-147(b)(1) through (b)(6); or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under Subsections R315-265-147(b)(1) through (b)(6).

(c) Request for an exception. If an owner or operator can demonstrate to the satisfaction of the Director that the levels of financial responsibility required by Subsections R315-265-147(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain an exception from the Director. The request for an exception must be submitted in writing to the Director. If granted, the exception will take the form of an adjusted level of required liability coverage, such level to be based on the Director's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Director may require an owner or operator who requests an exception to provide such technical and engineering information as is deemed necessary by the Director to determine a level of financial responsibility other than that required by Subsections R315-265-147(a) or (b). The Director will process an exception request as if it were a permit modification request under Subsection R315-270-41(a)(5) and subject to the procedures of Section R315-124-5. Notwithstanding any other provision, the Director may hold a public hearing at his discretion or whenever he finds, on the basis of requests for a public hearing, a significant degree of public interest in a tentative decision to grant an exception.

(d) Adjustments by the Director. If the Director determines that the levels of financial responsibility required by Subsections R315-265-147(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Director may adjust the level of financial responsibility required under Subsection R315-265-147(a) or (b) as may be necessary to protect human health and the environment. This adjusted level will be based on the Director's assessment of the degree and

duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Director determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with Subsection R315-265-147(b). An owner or operator shall furnish to the Director, within a reasonable time, any information which the Director requests to determine whether cause exists for such adjustments of level or type of coverage. The Director will process an adjustment of the level of required coverage as if it were a permit modification under Subsection R315-270-41(a)(5) and subject to the procedures of Section R315-124-5. Notwithstanding any other provision, the Director may hold a public hearing at his discretion or whenever he finds, on the basis of requests for a public hearing, a significant degree of public interest in a tentative decision to adjust the level or type of required coverage.

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that final closure has been completed in accordance with the approved closure plan, the Director will notify the owner or operator in writing that he is no longer required by Section R315-265-147 to maintain liability coverage for that facility, unless the Director has reason to believe that closure has not been in accordance with the approved closure plan.

(f) Financial test for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-265-147 by demonstrating that he passes a financial test as specified in this Subsection R315-265-147(f). To pass this test the owner or operator shall meet the criteria of Subsections R315-265-147(f)(1)(i) or (ii):

(i) The owner or operator shall have:

(A) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test; and

(B) Tangible net worth of at least $10 million; and

(C) Assets in the United States amounting to either: (1) At least 90 percent of his total assets; or (2) at least six times the amount of liability coverage to be demonstrated by this test.

(ii) The owner or operator shall have:

(A) A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's; and

(B) Tangible net worth of at least $10 million; and

(C) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

(D) Assets in the United States amounting to either: (1) At least 90 percent of his total assets; or (2) at least six times the amount of liability coverage to be demonstrated by this test.

(2) The phrase "amount of liability coverage" as used in Subsection R315-265-147(f)(1) refers to the annual aggregate amounts for which coverage is required under Subsections R315-265-147(a) and (b).

(3) To demonstrate that he meets this test, the owner or operator shall submit the following three items to the Director:

(i) A letter signed by the owner's or operator's chief financial officer and worded as specified in Subsection R315-264-151(g). If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by Subsections R315-264-143(f), R315-264-145(f), R315-265-143(e), and R315-265-145(e), and liability coverage, he shall submit the letter specified in Subsection R315-264-151(g) to cover both forms of financial responsibility; a separate letter as specified in Subsection R315-264-151(f) is not required.

(ii) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year.

(iii) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

(A) He has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

(B) In connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

(4) The owner or operator may obtain a one-time extension of the time allowed for submission of the documents specified in Subsection R315-265-147(f)(3) if the fiscal year of the owner or operator ends during the 90 days prior to the effective date of these regulations and if the year-end financial statements for that fiscal year will be audited by an independent certified public accountant. The extension will end no later than 90 days after the end of the owner's or operator's fiscal year. To obtain the extension, the owner's or operator's chief financial officer shall send, by the effective date of these regulations, a letter to the Director. This letter from the chief financial officer shall:

(i) Request the extension;

(ii) Certify that he has grounds to believe that the owner or operator meets the criteria of the financial test;

(iii) Specify for each facility to be covered by the test the EPA Identification Number, name, address, the amount of liability coverage and, when applicable, current closure and post-closure cost estimates to be covered by the test;

(iv) Specify the date ending the owner's or operator's last complete fiscal year before the effective date of these regulations;

(v) Specify the date, no later than 90 days after the end of such fiscal year, when he will submit the documents specified in Subsection R315-265-147(f)(3); and

(vi) Certify that the year-end financial statements of the owner or operator for such fiscal year will be audited by an independent certified public accountant.

(5) After the initial submission of items specified in Subsection R315-265-147(f)(3), the owner or operator shall send updated information to the Director within 90 days after the close of each succeeding fiscal year. This information must consist of all three items

specified in Subsection R315-265-147(f)(3).

(6) If the owner or operator no longer meets the requirements of Subsection R315-265-147(f)(1), he shall obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in Section R315-265-147. Evidence of liability coverage must be submitted to the Director within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

(7) The Director may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements, see Subsection R315-265-147(f)(3)(ii). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Director will evaluate other qualifications on an individual basis. The owner or operator shall provide evidence of insurance for the entire amount of required liability coverage as specified in Section R315-265-147 within 30 days after notification of disallowance.

(g) Guarantee for liability coverage.

(1) Subject to Subsection R315-265-147(g)(2), an owner or operator may meet the requirements of Section R315-265-147 by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor shall be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor shall meet the requirements for owners or operators in Subsections R315-265-147(f)(1) through (f)(6). The wording of the guarantee must be identical to the wording specified in Subsection R315-264-151(h)(2). A certified copy of the guarantee shall accompany the items sent to the Director as specified in Subsection R315-265-147(f)(3). One of these items shall be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter shall describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter shall describe this "substantial business relationship" and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences, or both as the case may be, arising from the operation of facilities covered by this corporate guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(2)(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of Section R315-265-147 only if the Attorneys General or Insurance Commissioners of (A) the State in which the guarantor is incorporated, and (B) Utah have submitted a written statement to the Director that a guarantee executed as described in Section R315-265-147 and Subsection R315-264-151(h)(2) is a legally valid and enforceable obligation in Utah.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of Section R315-265-147 only if (A) the non-U.S. corporation has identified a registered agent for service of process in each Utah and in the State in which it has its principal place of business, and if (B) the Attorney General or Insurance Commissioner of each Utah and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to the Director that a guarantee executed as described in Section R315-265-147 and Subsection R315-264-151(h)(2) is a legally valid and enforceable obligation in that Utah.

(h) Letter of credit for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-265-147 by obtaining an irrevocable standby letter of credit that conforms to the requirements of Subsection R315-265-147(h) and submitting a copy of the letter of credit to the Director.

(2) The financial institution issuing the letter of credit shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or Utah agency.

(3) The wording of the letter of credit must be identical to the wording specified in Subsection R315-264-151(k).

(4) An owner or operator who uses a letter of credit to satisfy the requirements of Section R315-265-147 may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust will be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or Utah agency.

(5) The wording of the standby trust fund shall be identical to the wording specified in Subsection R315-264-151(n).

(i) Surety bond for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-265-147 by obtaining a surety bond that conforms to the requirements of Subsection R315-265-147(i) and submitting a copy of the bond to the Director.

(2) The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

(3) The wording of the surety bond must be identical to the wording specified in Subsection R315-264-151(l).

(4) A surety bond may be used to satisfy the requirements of Section R315-265-147 only if the Attorneys General or Insurance Commissioners of (i) the State in which the surety is incorporated, and (ii) Utah have submitted a written statement to the Director that a surety bond executed as described in Section R315-265-147 and Subsection R315-264-151(l) is a legally valid and enforceable obligation in Utah.

(j) Trust fund for liability coverage.

(1) An owner or operator may satisfy the requirements of Section R315-265-147 by establishing a trust fund that conforms to the requirements of Subsection R315-265-147(j) and submitting an originally signed duplicate of the trust agreement to the Director.

(2) The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or Utah agency.

(3) The trust fund for liability coverage shall be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of Section R315-265-147. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the Fund, shall either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in Section R315-265-147 to cover the difference. For purposes of Subsection R315-265-147(j), "the full amount of the liability coverage to be provided" means the amount of coverage for sudden occurrences, nonsudden occurrences, or both required to be provided by the owner or operator by Section R315-265-147, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

(4) The wording of the trust fund must be identical to the wording specified in Subsection R315-264-151(m).

R315-265-148. Financial Requirements -- Incapacity of Owners or Operators, Guarantors, or Financial Institutions.

(a) An owner or operator shall notify the Director by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11, Bankruptcy, U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in Subsections R315-265-143(e) and R315-265-145(e) shall make such a notification if he is named as debtor, as required under the terms of the corporate guarantee, see Subsection R315-264-151(h).

(b) An owner or operator who fulfills the requirements of Sections R315-265-143, R315-265-145, or R315-265-147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator shall establish other financial assurance or liability coverage within 60 days after such an event.

R315-265-170. Use and Management of Containers -- Applicability.

The requirements in Sections R315-265-170 through R315-265-178 apply to owners and operators of hazardous waste facilities that store containers of hazardous waste, except as Section R315-265-1 provides otherwise.

R315-265-171. Use and Management of Containers -- Condition of Containers.

If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator shall transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of Rule R315-265.

R315-265-172. Use and Management of Containers -- Compatibility of Waste with Container.

The owner or operator shall use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

R315-265-173. Use and Management of Containers -- Management of Containers.

(a) A container holding hazardous waste shall always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste shall not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Comment: Re-use of containers in transportation is governed by U.S. Department of Transportation regulations, including those set forth in 49 CFR 173.28.

R315-265-174. Use and Management of Containers -- Inspections.

At least weekly, the owner or operator shall inspect areas where containers are stored. The owner or operator shall look for leaking containers and for deterioration of containers caused by corrosion or other factors. See Section R315-265-171 for remedial action required if deterioration or leaks are detected.

R315-265-176. Use and Management of Containers -- Special Requirements for Ignitable or Reactive Waste.

Containers holding ignitable or reactive waste shall be located at least 15 meters, 50 feet, from the facility's property line.

Comment: See Subsection R315-265-17(a) for additional requirements.

R315-265-177. Use and Management of Containers -- Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible wastes and materials, see 40 CFR 265 appendix V which is adopted and incorporated by reference for examples, shall not be placed in the same container, unless Subsection R315-265-17(b) is complied with.

(b) Hazardous waste shall not be placed in an unwashed container that previously held an incompatible waste or material, see 40 CFR 265 appendix V which is adopted and incorporated by reference for examples, unless Subsection R315-265-17(b) is complied with.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

Comment: The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.

R315-265-178. Use and Management of Containers -- Air Emission Standards.

The owner or operator shall manage all hazardous waste placed in a container in accordance with the applicable requirements of subparts AA, BB, and CC of 40 CFR 265 which is adopted and incorporated by reference.

R315-265-190. Tank Systems -- Applicability.

The requirements of Sections R315-265-190 through 265-202 apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in Subsections R315-265-190(a), (b), and (c) or in Section R315-265-1.

(a) Tank systems that are used to store or treat hazardous waste which contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in Section R315-265-193. To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test must be used: Method 9095B, Paint Filter Liquids Test, as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(b) Tank systems, including sumps, as defined in Section R315-260-10, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in Subsection R315-265-193(a).

(c) Tanks, sumps, and other collection devices used in conjunction with drip pads, as defined in Section R315-260-10 and regulated under 40 CFR part 265 subpart W, which is adopted and incorporated by reference, must meet the requirements of Sections R315-265-190 through 265-202.

R315-265-191. Tank Systems -- Assessment of Existing Tank System's Integrity.

(a) For each existing tank system that does not have secondary containment meeting the requirements of Section R315-265-193, the owner or operator shall determine that the tank system is not leaking or is unfit for use. Except as provided in Subsection R315-265-191(c), the owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by a qualified Professional Engineer in accordance with Subsection R315-270-11(d), that attests to the tank system's integrity by January 12, 1988.

(b) This assessment shall determine that the tank system is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be stored or treated to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment must consider the following:

(1) Design standard(s), if available, according to which the tank and ancillary equipment were constructed;

(2) Hazardous characteristics of the waste(s) that have been or will be handled;

(3) Existing corrosion protection measures;

(4) Documented age of the tank system, if available, otherwise, an estimate of the age; and

(5) Results of a leak test, internal inspection, or other tank integrity examination such that:

(i) For non-enterable underground tanks, this assessment shall consist of a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets, and high water table effects,

(ii) For other than non-enterable underground tanks and for ancillary equipment, this assessment shall be either a leak test, as described above, or an internal inspection, or other tank integrity examination, or a combination of assessment mechanisms, certified by a qualified Professional Engineer in accordance with Subsection R315-270-11(d) that addresses cracks, leaks, corrosion, and erosion.

Note: The practices described in the American Petroleum Institute (API) Publication, Guide for Inspection of Refinery Equipment, Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks," 4th edition, 1981, may be used, where applicable, as guidelines in conducting the integrity examination of an other than non-enterable underground tank system.

(c) Tank systems that store or treat materials that become hazardous wastes subsequent to July 14, 1986 shall conduct this assessment within 12 months after the date that the waste becomes a hazardous waste.

(d) If, as a result of the assessment conducted in accordance with Subsection R315-265-191(a), a tank system is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of Section R315-265-196.

R315-265-192. Tank Systems -- Design and Installation of New Tank Systems or Components.

(a) Owners or operators of new tank systems or components shall ensure that the foundation, structural support, seams, connections, and pressure controls, if applicable, are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection so that it will not collapse, rupture, or fail. The owner or operator shall obtain a written assessment reviewed and certified by a qualified Professional Engineer in accordance with Subsection R315-270-11(d) attesting that the system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. This assessment shall include the following information:

(1) Design standard(s) according to which the tank(s) and ancillary equipment is or will be constructed.

(2) Hazardous characteristics of the waste(s) to be handled.

(3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of:

(i) Factors affecting the potential for corrosion, including but not limited to:

(A) Soil moisture content;

(B) Soil pH;

(C) Soil sulfides level;

(D) Soil resistivity;

(E) Structure to soil potential;

(F) Influence of nearby underground metal structures, for example, piping;

(G) Stray electric current; and,

(H) Existing corrosion-protection measures, for example, coating, cathodic protection, and

(ii) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

(A) Corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic;

(B) Corrosion-resistant coating, such as epoxy or fiberglass, with cathodic protection, for example, impressed current or sacrificial anodes; and

(C) Electrical isolation devices such as insulating joints and flanges.

Note: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)---Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in providing corrosion protection for tank systems.

(4) For underground tank system components that are likely to be affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

(5) Design considerations to ensure that:

(i) Tank foundations will maintain the load of a full tank;

(ii) Tank systems will be anchored to prevent flotation or dislodgement where the tank system is placed in a saturated zone, or is located within a seismic fault zone; and

(iii) Tank systems will withstand the effects of frost heave.

(b) The owner or operator of a new tank system shall ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or a qualified Professional Engineer, either of whom is trained and experienced in the proper installation of tank systems, shall inspect the system or component for the presence of any of the following items:

(1) Weld breaks;

(2) Punctures;

(3) Scrapes of protective coatings;

(4) Cracks;

(5) Corrosion;

(6) Other structural damage or inadequate construction or installation.

All discrepancies shall be remedied before the tank system is covered, enclosed, or placed in use.

(c) New tank systems or components and piping that are placed underground and that are backfilled shall be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is carefully installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

(d) All new tanks and ancillary equipment shall be tested for tightness prior to being covered, enclosed or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system shall be performed prior to the tank system being covered, enclosed, or placed in use.

(e) Ancillary equipment shall be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction.

Note: The piping system installation procedures described in American Petroleum Institute (API) Publication 1615 (November 1979), "Installation of Underground Petroleum Storage Systems," or ANSI Standard B31.3, "Petroleum Refinery System," may be used, where applicable, as guidelines for proper installation of piping systems.

(f) The owner or operator shall provide the type and degree of corrosion protection necessary, based on the information provided under Subsection R315-265-192(a)(3), to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated shall be supervised by an independent corrosion expert to ensure proper installation.

(g) The owner or operator shall obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of Subsections R315-265-192(b) through (f) to attest that the tank system was properly designed and installed and that repairs, pursuant to Subsections R315-265-192(b) and (d) were performed. These written statements shall also include the certification statement as required in Subsection R315-270-11(d).

R315-265-193. Tank Systems -- Containment and Detection of Releases.

(a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of Section R315-265-193 shall be provided, except as provided in Subsections R315-265-193(f) and (g):

(1) For all new and existing tank systems or components, prior to their being put into service.

(2) For tank systems that store or treat materials that become hazardous wastes, within 2 years of the hazardous waste listing, or when the tank system has reached 15 years of age, whichever comes later.

(b) Secondary containment systems shall be:

(1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and

(2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

(c) To meet the requirements of Subsection R315-265-193(b), secondary containment systems shall be at a minimum:

(1) Constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and shall have

sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrological forces, physical contact with the waste to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation, including stresses from nearby vehicular traffic;

(2) Placed on a foundation or base capable of providing support to the secondary containment system and resistance to pressure gradients above and below the system and capable of preventing failure due to settlement, compression, or uplift;

(3) Provided with a leak detection system that is designed and operated so that it will detect the failure of either the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the existing detection technology or site conditions will not allow detection of a release within 24 hours;

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation shall be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health or the environment, if removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

Note: If the collected material is a hazardous waste under Rule R315-261, it is subject to management as a hazardous waste in accordance with all applicable requirements of Rules R315-262 through R315-265. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of sections 301, 304, and 402 of the Clean Water Act, as amended. If discharged to Publicly Owned Treatment Works (POTWs), it is subject to the requirements of section 307 of the Clear Water Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 CFR part 302.

(d) Secondary containment for tanks shall include one or more of the following devices:

(1) A liner, external to the tank;

(2) A vault;

(3) A double-walled tank; or

(4) An equivalent device as approved by the Director.

(e) In addition to the requirements of Subsections R315-265-193(b), (c), and (d), secondary containment systems shall satisfy the following requirements:

(1) External liner systems must be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity shall be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Free of cracks or gaps; and

(iv) Designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tank(s), for example, capable of preventing lateral as well as vertical migration of the waste.

(2) Vault systems shall be:

(i) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

(ii) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

(iii) Constructed with chemical-resistant water stops in place at all joints, if any;

(iv) Provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;

(v) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:

(A) Meets the definition of ignitable waste under Section R315-261-21, or

(B) Meets the definition of reactive waste under Section R315-261-23 and may form an ignitable or explosive vapor; and

(vi) Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

(3) Double-walled tanks shall be:

(i) Designed as an integral structure, for example, an inner tank within an outer shell, so that any release from the inner tank is contained by the outer shell;

(ii) Protected, if constructed of metal, from both corrosion of the primary tank interior and the external surface of the outer shell; and

(iii) Provided with a built-in, continuous leak detection system capable of detecting a release within 24 hours or at the earliest practicable time, if the owner or operator can demonstrate to the Director, and the Director concurs, that the existing leak detection technology or site conditions will not allow detection of a release within 24 hours.

Note: The provisions outlined in the Steel Tank Institute's (STI) "Standard for Dual Wall Underground Steel Storage Tank" may be used as guidelines for aspects of the design of underground steel double-walled tanks.

(f) Ancillary equipment shall be provided with full secondary containment, for example, trench, jacketing, double-walled piping, that meets the requirements of Subsections R315-265-193(b) and (c) except for:

(1) Aboveground piping, exclusive of flanges, joints, valves, and connections, that are visually inspected for leaks on a daily basis;

(2) Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;

(3) Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

(4) Pressurized aboveground piping systems with automatic shut-off devices, for example, excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices, that are visually inspected for leaks on a daily basis.

(g) The owner or operator may obtain an exception from the requirements of Section R315-265-193 if the Director finds, as a result of a demonstration by the owner or operator, either: that alternative design and operating practices, together with location characteristics, will prevent the migration of hazardous waste or hazardous constituents into the ground water or surface water at least as effectively as secondary containment during the active life of the tank system or that in the event of a release that does migrate to ground water or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with Subsection R315-265-193(g)(2), be exempted from the secondary containment requirements of Section R315-265-193. Application for an exception as allowed in Subsection R315-265-193(g) does not waive compliance with the requirements of Sections R315-265-190 through R315-265-202 for new tank systems.

(1) In deciding whether to grant an excpetion based on a demonstration of equivalent protection of ground water and surface water, the Director will consider:

(i) The nature and quantity of the waste;

(ii) The proposed alternate design and operation;

(iii) The hydrogeologic setting of the facility, including the thickness of soils between the tank system and ground water; and

(iv) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to ground water or surface water.

(2) In deciding whether to grant an excpetion, based on a demonstration of no substantial present or potential hazard, the Director will consider:

(i) The potential adverse effects on ground water, surface water, and land quality taking into account:

(A) The physical and chemical characteristics of the waste in the tank system, including its potential for migration,

(B) The hydrogeological characteristics of the facility and surrounding land,

(C) The potential for health risks caused by human exposure to waste constituents,

(D) The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents, and

(E) The persistence and permanence of the potential adverse effects;

(ii) The potential adverse effects of a release on ground-water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The proximity and withdrawal rates of water in the area,

(C) The current and future uses of ground water in the area, and

(D) The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground-water quality;

(iii) The potential adverse effects of a release on surface water quality, taking into account:

(A) The quantity and quality of ground water and the direction of ground-water flow,

(B) The patterns of rainfall in the region,

(C) The proximity of the tank system to surface waters,

(D) The current and future uses of surface waters in the area and any water quality standards established for those surface waters, and

(E) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality; and

(iv) The potential adverse effects of a release on the land surrounding the tank system, taking into account:

(A) The patterns of rainfall in the region, and

(B) The current and future uses of the surrounding land.

(3) The owner or operator of a tank system, for which an excpetion from secondary containment had been granted in accordance with the requirements of Subsection R315-265-193(g)(1), at which a release of hazardous waste has occurred from the primary tank system but has not migrated beyond the zone of engineering control, as established in the exception, shall:

(i) Comply with the requirements of Section R315-265-196, except Subsection R315-265-196(d); and

(ii) Decontaminate or remove contaminated soil to the extent necessary to:

(A) Enable the tank system, for which the excpetion was granted, to resume operation with the capability for the detection of and response to releases at least equivalent to the capability it had prior to the release, and

(B) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water; and

(iii) If contaminated soil cannot be removed or decontaminated in accordance with Subsection R315-265-193(g)(3)(ii), comply with the requirements of Subsection R315-265-197(b);

(4) The owner or operator of a tank system, for which an exception from secondary containment had been granted in accordance with the requirements of Subsection R315-265-193(g)(1), at which a release of hazardous waste has occurred from the primary tank system and has migrated beyond the zone of engineering control, as established in the exception, shall:

(i) Comply with the requirements of Subsections R315-265-196(a), (b), (c), and (d); and

(ii) Prevent the migration of hazardous waste or hazardous constituents to ground water or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed, or if ground water has been contaminated, the owner or operator shall comply with the requirements of Subsection R315-265-197(b);

(iii) If repairing, replacing, or reinstalling the tank system, provide secondary containment in accordance with the requirements of Subsections R315-265-193(a) through (f) or reapply for an exception from secondary containment and meet the requirements for new tank

systems in Section R315-265-192 if the tank system is replaced. The owner or operator shall comply with these requirements even if contaminated soil can be decontaminated or removed, and ground water or surface water has not been contaminated.

(h) The following procedures shall be followed in order to request an exception from secondary containment:

(1) The Director shall be notified in writing by the owner or operator that he intends to conduct and submit a demonstration for an exception from secondary containment as allowed in paragraph (g) of this section according to the following schedule:

(i) For existing tank systems, at least 24 months prior to the date that secondary containment shall be provided in accordance with Subsection R315-265-193(a); and

(ii) For new tank systems, at least 30 days prior to entering into a contract for installation of the tank system.

(2) As part of the notification, the owner or operator shall also submit to the Director a description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration shall address each of the factors listed in Subsection R315-265-193(g)(1) or Subsection R315-265-193(g)(2).

(3) The demonstration for an exception shall be completed and submitted to the Director within 180 days after notifying the Director of intent to conduct the demonstration.

(4) The Director will inform the public, through a newspaper notice, of the availability of the demonstration for an exception. The notice shall be placed in a daily or weekly major local newspaper of general circulation and shall provide at least 30 days from the date of the notice for the public to review and comment on the demonstration for an exception. The Direction also will hold a public hearing, in response to a request or at his own discretion, whenever such a hearing might clarify one or more issues concerning the demonstration for an exception. Public notice of the hearing will be given at least 30 days prior to the date of the hearing and may be given at the same time as notice of the opportunity for the public to review and comment on the demonstration. These two notices may be combined.

(5) The Director will approve or disapprove the request for an exception within 90 days of receipt of the demonstration from the owner or operator and will notify in writing the owner or operator and each person who submitted written comments or requested notice of the exception decision. If the demonstration for an exception is incomplete or does not include sufficient information, the 90-day time period will begin when the Director receives a complete demonstration, including all information necessary to make a final determination. If the public comment period in Subsection R315-265-193(h)(4) is extended, the 90-day time period will be similarly extended.

(i) All tank systems, until such time as secondary containment meeting the requirements of Section R315-265-193 is provided, shall comply with the following:

(1) For non-enterable underground tanks, a leak test that meets the requirements of Subsection R315-265-191(b)(5) shall be conducted at least annually;

(2) For other than non-enterable underground tanks, and for all ancillary equipment, the owner or operator shall either conduct a leak test as in Subsection R315-265-193(i)(1) or an internal inspection or other tank integrity examination by a qualified Professional Engineer that addresses cracks, leaks, and corrosion or erosion at least annually. The owner or operator shall remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed.

Note: The practices described in the American Petroleum Institute (API) Publication Guide for Inspection of Refining Equipment, Chapter XIII, "Atmospheric and Low Pressure Storage Tanks," 4th edition, 1981, may be used, when applicable, as guidelines for assessing the overall condition of the tank system.

(3) The owner or operator shall maintain on file at the facility a record of the results of the assessments conducted in accordance with Subsections R315-265-193(i)(1) through (i)(3).

(4) If a tank system or component is found to be leaking or unfit-for-use as a result of the leak test or assessment in Subsections R315-265-193(i)(1) through (i)(3), the owner or operator shall comply with the requirements of Subsection R315-265-196.

R315-265-194. Tank Systems -- General Operating Requirements.

(a) Hazardous wastes or treatment reagents shall not be placed in a tank system if they could cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail.

(b) The owner or operator shall use appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems. These include at a minimum:

(1) Spill prevention controls, for example, check valves, dry disconnect couplings;

(2) Overfill prevention controls, for example, level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank; and

(3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) The owner or operator must comply with the requirements of Section R315-265-196 if a leak or spill occurs in the tank system.

R315-265-195. Tank Systems -- Inspections.

(a) The owner or operator shall inspect, where present, at least once each operating day, data gathered from monitoring and leak detection equipment, for example, pressure or temperature gauges, monitoring wells, to ensure that the tank system is being operated according to its design.

Note: Subsection R315-265-15(c) requires the owner or operator to remedy any deterioration or malfunction he finds. Section R315-265-196 requires the owner or operator to notify the Director within 24 hours of confirming a release. Also, 40 CFR part 302 may require the owner or operator to notify the National Response Center of a release.

(b) Except as noted under Subsection R315-265-195(c), the owner or operator shall inspect at least once each operating day:

(1) Overfill/spill control equipment, for example, waste-feed cutoff systems, bypass systems, and drainage systems, to ensure that it is in good working order;

(2) Above ground portions of the tank system, if any, to detect corrosion or releases of waste; and

(3) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, for example, dikes, to detect erosion or signs of releases of hazardous waste, for example, wet spots, dead vegetation.

(c) Owners or operators of tank systems that either use leak detection equipment to alert facility personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, shall inspect at least weekly those areas described in Subsections R315-265-195(b)(1) through (3). Use of the alternate inspection schedule shall be documented in the facility's operating record. This documentation shall include a description of the established workplace practices at the facility.

(d) (Reserved)

(e) Ancillary equipment that is not provided with secondary containment, as described in Subsections R315-265-193(f)(1) through (4), shall be inspected at least once each operating day.

(f) The owner or operator shall inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

(1) The proper operation of the cathodic protection system shall be confirmed within six months after initial installation, and annually thereafter; and

(2) All sources of impressed current shall be inspected and/or tested, as appropriate, at least bimonthly, for example, every other month.

Note: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Recommended Practice (RP-02-85)-Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and the American Petroleum Institute (API) Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.

(g) The owner or operator shall document in the operating record of the facility an inspection of those items in Subsections R315-265-195(a) and (b).

R315-265-196. Tank Systems -- Response to Leaks or Spills and Dispostion of Leaking or Unfit-For-Use Tank Systems.

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, shall be removed from service immediately, and the owner or operator shall satisfy the following requirements:

(a) Cessation of use; prevent flow or addition of wastes. The owner or operator shall immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

(b) Removal of waste from tank system or secondary containment system.

(1) If the release was from the tank system, the owner or operator shall, within 24 hours after detection of the leak or, if the owner or operator demonstrates that that is not possible, at the earliest practicable time remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

(2) If the release was to a secondary containment system, all released materials shall be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

(c) Containment of visible releases to the environment. The owner or operator shall immediately conduct a visual inspection of the release and, based upon that inspection:

(1) Prevent further migration of the leak or spill to soils or surface water; and

(2) Remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) Notifications, reports.

(1) Any release to the environment, except as provided in Subsection R315-265-196(d)(2), shall be reported to the Director within 24 hours of detection. If the release has been reported pursuant to 40 CFR part 302, that report will satisfy this requirement.

(2) A leak or spill of hazardous waste that is:

(i) Less than or equal to a quantity of one pound, and

(ii) Immediately contained and cleaned-up is exempted from the requirements of Subsection R315-265-196(d).

(3) Within 30 days of detection of a release to the environment, a report containing the following information shall be submitted to the Director:

(i) Likely route of migration of the release;

(ii) Characteristics of the surrounding soil, soil composition, geology, hydrogeology, climate;

(iii) Results of any monitoring or sampling conducted in connection with the release, if available. If sampling or monitoring data relating to the release are not available within 30 days, these data shall be submitted to the Director as soon as they become available;

(iv) Proximity to downgradient drinking water, surface water, and population areas; and

(v) Description of response actions taken or planned.

(e) Provision of secondary containment, repair, or closure.

(1) Unless the owner or operator satisfies the requirements of Subsections R315-265-196(e) (2) through (4), the tank system shall be closed in accordance with Section R315-265-197.

(2) If the cause of the release was a spill that has not damaged the integrity of the system, the owner or operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

(3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system shall be repaired prior to returning the tank system to service.

(4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner or operator shall provide the component of the system from which the leak occurred with secondary containment that satisfies the

requirements of Section R315-265-193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system. If the source is an aboveground component that can be inspected visually, the component shall be repaired and may be returned to service without secondary containment as long as the requirements of Subsection R315-265-196(f) are satisfied. If a component is replaced to comply with the requirements of Subsection R315-265-196(e)(4), that component shall satisfy the requirements for new tank systems or components in Sections R315-265-192 and R315-265-193. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection, for example, the bottom of an inground or onground tank, the entire component shall be provided with secondary containment in accordance with Section R315-265-193 prior to being returned to use.

(f) Certification of major repairs. If the owner or operator has repaired a tank system in accordance with Subsection R315-265-196(e), and the repair has been extensive, for example, installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel, the tank system shall not be returned to service unless the owner or operator has obtained a certification by a qualified Professional Engineer in accordance with Subsection R315-270-11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification is to be placed in the operating record and maintained until closure of the facility.

Note: The Director may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order under Sections 19-6-101 through 125 requiring corrective action or such other response as deemed necessary to protect human health or the environment.

Note: See Subsection R315-265-15(c) for the requirements necessary to remedy a failure. Also, 40 CFR Part 302 requires the owner or operator to notify the National Response Center of a release of any "reportable quantity."

R315-265-197. Tank Systems -- Closure and Post-Closure Care.

(a) At closure of a tank system, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, for example, liners, contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless Subsection R315-261-3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems shall meet all of the requirements specified in Sections R315-265-110 through 265-121 and Sections R315-265-140 through 265-147.

(b) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in Subsection R315-265-197(a), then the owner or operator shall close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, 40 CFR 265.310. In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator shall meet all of the requirements for landfills specified in Sections R315-265-110 through 265-121 and Sections R315-265-140 through 265-147.

(c) If an owner or operator has a tank system which does not have secondary containment that meets the requirements of Subsections R315-265-193(b) through (f) and which is not exempt from the secondary containment requirements in accordance with Subsection R315-265-193(g), then,

(1) The closure plan for the tank system shall include both a plan for complying with Subsection R315-265-197(a) and a contingent plan for complying with Subsection R315-265-197(b).

(2) A contingent post-closure plan for complying with Subsection R315-265-197(b)shall be prepared and submitted as part of the permit application.

(3) The cost estimates calculated for closure and post-closure care shall reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if these costs are greater than the costs of complying with the closure plan prepared for the expected closure under Subsection R315-265-197(a).

(4) Financial assurance must be based on the cost estimates in Subsection R315-265-197(c)(3).

(5) For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans shall meet all of the closure, post-closure, and financial responsibility requirements for landfills under Sections R315-265-110 through 265-121 and Sections R315-265-140 through 265-147.

R315-265-198. Tank Systems -- Special Requirements for Ignitable or Reactive Wastes.

(a) Ignitable or reactive waste shall not be placed in a tank system, unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:

(i) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or R315-261-23; and

(ii) Subsection R315-265-17(b) is complied with; or

(2) The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(3) The tank system is used solely for emergencies.

(b) The owner or operator of a facility where ignitable or reactive waste is stored or treated in tanks shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," 1977 or 1981, incorporated by reference, see Section R315-260-11.

R315-265-199. Tank Systems -- Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible waste and materials, shall not be placed in the same tank system, unless Subsection

R315-265-17(b) is complied with.

(b) Hazardous waste shall not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless Subsection R315-265-17(b) is complied with.

R315-265-200. Tank Systems -- Waste Analysis and Trial Tests.

In addition to performing the waste analysis required by Section R315-265-13, the owner or operator shall, whenever a tank system is to be used to treat chemically or to store a hazardous waste that is substantially different from waste previously treated or stored in that tank system; or treat chemically a hazardous waste with a substantially different process than any previously used in that tank system:

(a) Conduct waste analyses and trial treatment or storage tests, for example, bench-scale or pilot-plant scale tests; or

(b) Obtain written, documented information on similar waste under similar operating conditions to show that the proposed treatment or storage will meet the requirements of Subsection R315-265-194(a).

Note: Section R315-265-13 requires the waste analysis plan to include analyses needed to comply with Sections R315-265-198 and 265-199. Section R315-265-73 requires the owner or operator to place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.

R315-265-202. Tank Systems -- Air Emission Standards.

The owner or operator shall manage all hazardous waste placed in a tank in accordance with the applicable requirements of 40 CFR 265 subparts AA, BB, and CC.

R315-265-220. Surface Impoundments -- Applicability.

The regulations in Sections R315-265-220 through 265-231 apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as Section R315-265-1 provides otherwise.

R315-265-221. Surface Impoundments -- Design and Operating Requirements.

(a) The owner or operator of each new surface impoundment unit, each lateral expansion of a surface impoundment unit, and each replacement of an existing surface impoundment unit shall install two or more liners, and a leachate collection and removal system between the liners, and operate the leachate collection and removal system, in accordance with Subsection R315-264-221(c), unless exempted under Subsection R315-264-221(d), R315-264-221(e), or R315-264-221(f).

(b) The owner or operator of each unit referred to in Subsection R315-265-221(a) shall notify the director at least 60-days before receiving waste. The owner or operator of each facility submitting notice shall file a part B application within six months of the receipt of the notice.

(c) The owner or operator of any replacement surface impoundment unit is exempt from Subsection R315-265-221(a) if:

(1) the existing unit was constructed in compliance with the design standards of Subsections 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and

(2) there is no reason to believe that the liner is not functioning as designed.

(d) The double liner requirement set forth in Subsection R315-265-221(a) may be waived by the director for any monofill, if:

(1) the monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and the wastes do not contain constituents that would make the wastes hazardous for reasons other than the Toxicity Characteristic in Section R315-261-24, with EPA Hazardous Waste Numbers D004 through D017; and

(2)(i)(A) the monofill has at least one liner for which there is no evidence that the liner is leaking. For the purposes of Subsection R315-265-221(d) the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, ground water, or surface water at any time during the active life of the facility. In the case of any surface impoundment that has been exempted from the requirements of Subsection R315-265-221(a) on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of the impoundment the owner or operator shall remove or decontaminate any waste residues, any contaminated liner material, and contaminated soil to the extent practicable. If the contaminated soil is not removed or decontaminated, the owner or operator of the impoundment shall comply with appropriate post-closure requirements, including ground-water monitoring and corrective action;

(B) the monofill is located more than one-quarter mile from an "underground source of drinking water," as that term is defined in Section R315-270-2; and

(C) the monofill is in compliance with generally applicable ground-water monitoring requirements for facilities with permits under RCRA section 3005(c); or

(ii) the owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(e) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of Subsection R315-265-221(a) and in good faith compliance with Subsection R315-265-221(a) and with guidance documents governing liners and leachate collection systems under Subsection R315-265-221(a), no liner or leachate collection system that is different from the liner that was installed pursuant to Subsection R315-265-221(a) will be required for the unit by the director when issuing the first permit to the facility, except that the director will not be precluded from requiring installation of a new liner when the director has reason to believe that any liner installed pursuant to the requirements of Subsection R315-265-221(a) is leaking.

(f) A surface impoundment shall maintain enough freeboard to prevent any overtopping of the dike by overfilling, wave

action, or a storm. Except as provided in Subsection R315-265-221(b), there shall be at least 60 centimeters, two feet, of freeboard.

(g) A freeboard level less than 60 centimeters, two feet, may be maintained if the owner or operator obtains certification by a qualified engineer that alternate design features or operating plans will, to the best of the qualified engineer's knowledge and opinion, prevent overtopping of the dike. The certification, along with a written identification of alternate design features or operating plans preventing overtopping, shall be maintained at the facility.

(h) Surface impoundments that are newly subject to RCRA section 3005(j)(1) due to the promulgation of additional listings or characteristics for the identification of hazardous waste shall be in compliance with Subsections R315-265-221(a), R315-264-221(c) and R315-264-221(d) before 48 months after the promulgation of the additional listing or characteristic. This compliance period shall not be cut short as the result of the promulgation of land disposal prohibitions under Rule R315-268 or the granting of an extension to the effective date of a prohibition pursuant to Section R315-268-5, within this 48-month period.

R315-265-222. Surface Impoundments -- Action Leakage Rate.

(a) The owner or operator of surface impoundment units subject to Subsection R315-265-221(a) shall submit a proposed action leakage rate to the Director when submitting the notice required under Subsection R315-265-221(b). Within 60 days of receipt of the notification, the Director will: Establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in Section R315-265-222; or extend the review period for up to 30 days. If no action is taken by the Director before the original 60 or extended 90 day review periods, the action leakage rate will be approved as proposed by the owner or operator.

(b) The Director shall approve an action leakage rate for surface impoundment units subject to Subsection R315-265-221(a). The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding 1 foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, for example, slope, hydraulic conductivity, and thickness of drainage material, construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions, for example, the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(c) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly or monthly flow rate from the monitoring data obtained under Subsection R315-265-226(b), to an average daily flow rate, gallons per acre per day, for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period, and if the unit closes in accordance with Subsection R315-265-228(a)(2), monthly during the post-closure care period when monthly monitoring is required under Subsection R315-265-226(b).

R315-265-223. Surface Impoundments -- Containment System.

All earthen dikes shall have a protective cover, such as grass, shale, or rock, to minimize wind and water erosion and to preserve their structural integrity.

R315-265-224. Surface Impoundments -- Response Actions.

(a) The owner or operator of surface impoundment units subject to Subsection R315-265-221(a) shall develop and keep on site until closure of the facility a response action plan. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in Subsection R315-265-224(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Director in writing of the exceedance within 7 days of the determination;

(2) Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in Subsections R315-265-224(b)(3), (4), and (5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak, remediation or both determinations in Subsections R315-265-224(b)(3), (4), and (5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

R315-265-225. Surface Impoundments -- Waste Analysis and Trial Tests.

(a) In addition to the waste analyses required by Section R315-265-13, whenever a surface impoundment is to be used to:

(1) Chemically treat a hazardous waste which is substantially different from waste previously treated in that impoundment; or

(2) Chemically treat hazardous waste with a substantially different process than any previously used in that impoundment; the

owner or operator shall, before treating the different waste or using the different process:

(i) Conduct waste analyses and trial treatment tests, for example, bench scale or pilot plant scale tests; or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this treatment will comply with Subsection R315-265-17(b).

Comment: As required by Section R315-265-13, the waste analysis plan shall include analyses needed to comply with Sections R315-265-229 and 265-230. As required by Section R315-265-73, the owner or operator shall place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.

R315-265-226. Surface Impoundments -- Monitoring and Inspection.

(a) The owner or operator shall inspect:

(1) The freeboard level at least once each operating day to ensure compliance with Section R315-265-222, and

(2) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leaks, deterioration, or failures in the impoundment.

(b)(1) An owner or operator required to have a leak detection system under Subsection R315-265-221(a) shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(2) After the final cover is installed, the amount of liquids removed from each leak detection system sump shall be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps shall be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps shall be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator shall return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(3) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump. The timing for submission and approval of the proposed "pump operating level" will be in accordance with Subsection R315-265-222(a).

Comment: As required by Subsection R315-265-15(c), the owner or operator shall remedy any deterioration or malfunction he finds.

R315-265-228. Surface Impoundments -- Closure and Post-Closure Care.

(a) At closure, the owner or operator shall:

(1) Remove or decontaminate all waste residues, contaminated containment system components, liners, etc., contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Subsection R315-261-3(d) applies; or

(2) Close the impoundment and provide post-closure care for a landfill under Sections R315-265-110 through 265-121 and 40 CFR 265.310, which is adopted and incorporated by reference, including the following:

(i) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

(ii) Stabilize remaining wastes to a bearing capacity sufficient to support the final cover; and

(iii) Cover the surface impoundment with a final cover designed and constructed to:

(A) Provide long-term minimization of the migration of liquids through the closed impoundment;

(B) Function with minimum maintenance;

(C) Promote drainage and minimize erosion or abrasion of the cover;

(D) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(E) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) In addition to the requirements of Sections R315-265-110 through R315-265-121, and 40 CFR 265.310, which is adopted and incorporated by reference, during the post-closure care period, the owner or operator of a surface impoundment in which wastes, waste residues, or contaminated materials remain after closure in accordance with the provisions of Subsection R315-265-228(a)(2)shall:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;

(2) Maintain and monitor the leak detection system in accordance with Subsections R315-264-221(c)(2)(iv) and (3) and Subsection R315-265-226(b) and comply with all other applicable leak detection system requirements of Rule R315-265;

(3) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Sections R315-265-90 through 265-94; and

(4) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

R315-265-229. Surface Impoundments -- Special Requirements for Ignitable or Reactive Waste.

Ignitable or reactive waste shall not be placed in a surface impoundment, unless the waste and impoundment satisfy all applicable requirements of Rule R315-268, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Sections R315-261-21 or R315-261-23; and

(2) Subsection R315-265-17(b) is complied with; or

(b)(1) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or

react; and

(2) The owner or operator obtains a certification from a qualified chemist or engineer that, to the best of his knowledge and opinion, the design features or operating plans of the facility will prevent ignition or reaction; and

(3) The certification and the basis for it are maintained at the facility; or

(c) The surface impoundment is used solely for emergencies.

R315-265-230. Surface Impoundments -- Special Requirements for Incompatible Wastes.

Incompatible wastes, or incompatible wastes and materials, see 40 CFR 265 appendix V, which is adopted and incorporated by reference for examples, shall not be placed in the same surface impoundment, unless Subsection R315-265-17(b) is complied with.

R315-265-231. Surface Impoundments -- Air Emission Standards.

The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the applicable requirements of 40 CFR 265 subparts BB and CC, which are adopted and incorporated by reference.

R315-265-250. Waste Piles-- Applicability.

The regulations in Sections R315-265-250 through R315-265-260 apply to owners and operators of facilities that treat or store hazardous waste in piles, except as Section R315-265-1 provides otherwise. Alternatively, a pile of hazardous waste may be managed as a landfill under 40 CFR subpart N.

R315-265-251. Waste Piles-- Protection from Wind.

The owner or operator of a pile containing hazardous waste which could be subject to dispersal by wind shall cover or otherwise manage the pile so that wind dispersal is controlled.

R315-265-252. Waste Piles-- Waste Analysis.

In addition to the waste analyses required by Section R315-265-13, the owner or operator shall analyze a representative sample of waste from each incoming movement before adding the waste to any existing pile, unless (1) The only wastes the facility receives which are amenable to piling are compatible with each other, or (2) the waste received is compatible with the waste in the pile to which it is to be added. The analysis conducted shall be capable of differentiating between the types of hazardous waste the owner or operator places in piles, so that mixing of incompatible waste does not inadvertently occur. The analysis shall include a visual comparison of color and texture.

Comment: As required by Section R315-265-13, the waste analysis plan shall include analyses needed to comply with Sections R315-265-256 and 265-257. As required by Section R315-265-73, the owner or operator shall place the results of this analysis in the operating record of the facility.

R315-265-253. Waste Piles-- Containment.

If leachate or run-off from a pile is a hazardous waste, then either:

(a)(1) The pile shall be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage;

(2) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm;

(3) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm; and

(4) Collection and holding facilities, for example, tanks or basins, associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously to maintain design capacity of the system; or

(b)(1) The pile shall be protected from precipitation and run-on by some other means; and

(2) No liquids or wastes containing free liquids may be placed in the pile.

Comment: If collected leachate or run-off is discharged through a point source to waters of the United States, it is subject to the requirements of section 402 of the Clean Water Act, as amended.

R315-265-254. Waste Piles-- Design and Operating Requirements.

The owner or operator of each new waste pile on which construction commences after January 29, 1992, each lateral expansion of a waste pile unit on which construction commences after July 29, 1992, and each such replacement of an existing waste pile unit that is to commence reuse after July 29, 1992 shall install two or more liners and a leachate collection and removal system above and between such liners, and operate the leachate collection and removal systems, in accordance with Subsection R315-264-251(c), unless exempted under Subsections R315-264-251(d), (e), or (f); and shall comply with the procedures of Subsection R315-265-221(b). "Construction commences" is as defined in Section R315-260-10 under "existing facility".

R315-265-255. Waste Piles-- Action Leakage Rates.

(a) The owner or operator of waste pile units subject to Section R315-265-254 shall submit a proposed action leakage rate to the Director when submitting the notice required under Section R315-265-254. Within 60 days of receipt of the notification, the Director will: Establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in this Section R315-265-255; or extend the review period for up to 30 days. If no action is taken by the Director before the original 60 or extended 90 day review periods,

the action leakage rate will be approved as proposed by the owner or operator.

(b) The Director shall approve an action leakage rate for waste pile units subject to Section R315-265-254. The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding 1 foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, for example, slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions, for example, the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(c) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly flow rate from the monitoring data obtained under Section R315-265-260, to an average daily flow rate, gallons per acre per day, for each sump. Unless the Director approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period.

R315-265-256. Waste Piles-- Special Requirements for Ignitable or Reactive Waste.

(a) Ignitable or reactive waste shall not be placed in a pile unless the waste and pile satisfy all applicable requirements of Rule R315-268, and:

(1) Addition of the waste to an existing pile (i) results in the waste or mixture no longer meeting the definition of ignitable or reactive waste under Sections R315-261-21 or R315-261-23, and (ii) complies with Subsection R315-265-17(b); or

(2) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

R315-265-257. Waste Piles-- Special Requirements for Incompatible Wastes.

(a) Incompatible wastes, or incompatible wastes and materials, see 40 CFR 265 appendix V, which is adopted and incorporated by reference, for examples, shall not be placed in the same pile, unless Subsection R315-265-17(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device.

Comment: The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the contact or mixing of incompatible wastes or materials.

(c) Hazardous waste shall not be piled on the same area where incompatible wastes or materials were previously piled, unless that area has been decontaminated sufficiently to ensure compliance with Subsection R315-265-17(b).

R315-265-258. Waste Piles-- Closure and Post-Closure Care.

(a) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, liners, etc., contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Subsection R315-261-3(d) applies; or

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-265-258(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills, see 40 CFR 265.310.

R315-265-259. Waste Piles-- Response Actions.

(a) The owner or operator of waste pile units subject to Section R315-265-254 shall develop and keep on-site until closure of the facility a response action plan. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in Subsection R315-265-259(b).

(b) If the flow rate into the leak determination system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Director in writing of the exceedance within seven days of the determination;

(2) Submit a preliminary written assessment to the Director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipts should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Director the results of the analyses specified in Subsections R315-265-259(b)(3), (4), and (5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the Director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the either the leak or remediation or both determinations in Subsections R315-265-259(b)(3), (4), and (5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

R315-265-260. Waste Piles-- Monitoring and Inspection.

An owner or operator required to have a leak detection system under Section R315-265-254 shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

R315-265-300. Landfills -- Applicability.

Sections R315-265-300 through R315-265-316 apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as Section R315-265-1 provides otherwise. A waste pile used as a disposal facility is a landfill and is governed by Sections R315-265-300 through R315-265-316.

R315-265-301. Landfills -- Design and Operating Requirements.

(a) The owner or operator of each new landfill unit, each lateral expansion of a landfill unit, and each replacement of an existing landfill unit shall install two or more liners and a leachate collection and removal system above and between the liners, and operate the leachate collection and removal system, in accordance with Subsection R315-264-301(c), unless exempted under Subsection R315-264.301(d), R315-264-301(e), or R315-264-301(f).

(b) The owner or operator of each unit referred to in Subsection R315-265-301(a) shall notify the director at least 60 days before receiving waste. The owner or operator of each facility submitting notice shall file a part B application within six months of the receipt of the notice.

(c) The owner or operator of any replacement landfill unit is exempt from Subsection R315-265-301(a) if:

(1) the existing unit was constructed in compliance with the design standards of Sections 3004(o)(1)(A)(i) and 3004(o)(5) of the Resource Conservation and Recovery Act; and

(2) there is no reason to believe that the liner is not functioning as designed.

(d) The double liner requirement set forth in Subsection R315-265-301(a) may be waived by the director for any monofill, if:

(1) the monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and the wastes do not contain constituents that would make the wastes hazardous for reasons other than the Toxicity Characteristic in Section R315-261-24, with EPA Hazardous Waste Numbers D004 through D017; and

(2)(i)(A) the monofill has at least one liner for which there is no evidence that the liner is leaking;

(B) the monofill is located more than one-quarter mile from an "underground source of drinking water", as that term is defined in Section R315-270-2; and

(C) the monofill is in compliance with generally applicable ground-water monitoring requirements for facilities with permits under RCRA Section 3005(c); or

(ii) the owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(e) In the case of any unit that has a liner and leachate collection system that has been installed pursuant to the requirements of Subsection R315-265-301(a) and in good faith compliance with Subsection R315-265-301(a) and with guidance documents governing liners and leachate collection systems under Subsection R315-265-301(a), no liner or leachate collection system that is different from the liner or leachate collection system that was installed pursuant to Subsection R315-265-301(a) will be required for the unit by the director when issuing the first permit to the facility, except that the director will not be precluded from requiring installation of a new liner if the director has reason to believe that any liner installed pursuant to the requirements of Subsection R315-265-301(a) is leaking.

(f) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

(g) The owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(h) Collection and holding facilities such as tanks or basins associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(i) The owner or operator of a landfill containing hazardous waste that is subject to dispersal by wind shall cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

(j) As required by Section R315-265-13, the waste analysis plan shall include analyses needed to comply with Sections R315-265-312, R315-265-313, and R315-265-314. As required by Section R315-265-73, the owner or operator shall place the results of these analyses in the operating record of the facility.

R315-265-302. Landfills -- Action Leakage Rate.

(a) The owner or operator of landfill units subject to Subsection R315-265-301(a) shall submit a proposed action leakage rate to the director when submitting the notice required under Subsection R315-265-301(b). Within 60 days of receipt of the notification, the director will:

(1) establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in this section; or

(2) extend the review period for up to 30 days.

(3) If no action is taken by the director before the original 60 or extended 90 day review periods, the action leakage rate will be approved as proposed by the owner or operator.

(b) The director shall approve an action leakage rate for land fill units subject to Subsection R315-265-301(a). The action leakage rate is the maximum design flow rate that the leak detection system (LDS) can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, such as, slope, hydraulic conductivity, and thickness of drainage material, construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions. for example, the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures.

(c) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly or monthly flow rate from the monitoring data obtained in accordance with Section R315-265-304 to an average daily flow rate, gallons per acre per day, for each sump. Unless the director approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period, and monthly during the post-closure care period if monthly monitoring is required under Subsection R315-265-304(b).

R315-265-303. Landfills -- Response Actions.

(a) The owner or operator of landfill units subject to Subsection R315-265-301(a) shall develop and keep on site until closure of the facility a response action plan. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in Subsection R315-265-303(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) notify the director in writing of the exceedance within seven days of the determination;

(2) submit a preliminary written assessment to the director within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) determine to the extent practicable the location, size, and cause of any leak;

(4) determine whether waste receipt should stop or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) within 30 days after the notification that the action leakage rate has been exceeded, submit to the director the results of the analyses specified in Subsections R315-265-303(b)(3), R315-265-303(b)(4), and R315-265-303(b)(5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the director a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak or remediation determinations or both in Subsections R315-265-303(b)(3), R315-265-303(b)(4), and R315-265-303(b)(5), the owner or operator shall:

(1)(i) assess the source of liquids and amounts of liquids by source;

(ii) conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) document why the assessments are not needed.

R315-265-304. Landfills -- Monitoring and Inspection.

(a) An owner or operator required to have a leak detection system under Subsection R315-265-301(a) shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(b) After the final cover is installed, the amount of liquids removed from each leak detection system sump shall be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps shall be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps shall be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator shall return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(c) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the director based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump. The timing for submission and approval of the proposed "pump operating level" will be in accordance with Subsection R315-265-302(a).

R315-265-309. Landfills -- Surveying and Recordkeeping.

The owner or operator of a landfill shall maintain the following items in the operating record required by Section R315-265-73:

(a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

R315-265-310. Landfills -- Closure and Post-Closure Care.

(a) At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:

(1) provide long-term minimization of migration of liquids through the closed landfill;

(2) function with minimum maintenance;
(3) promote drainage and minimize erosion or abrasion of the cover;
(4) accommodate settling and subsidence so that the cover's integrity is maintained; and
(5) have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.
(b) After final closure, the owner or operator shall comply with the post-closure requirements contained in Sections R315-265-117 through R315-265-120 including maintenance and monitoring throughout the post-closure care period. The owner or operator shall:
(1) maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;
(2) maintain and monitor the leak detection system in accordance with Subsections R315-264-301(c)(3)(iv) and R315-264-301(c)(4) and Subsection R315-265-304(b), and comply with any other applicable leak detection system requirements of Rule R315-265;
(3) maintain and monitor the ground-water monitoring system and comply with any other applicable requirements of Sections R315-265-90 through R315-265-94;
(4) prevent run-on and run-off from eroding or otherwise damaging the final cover; and
(5) protect and maintain surveyed benchmarks used in complying with Section R315-265-309.

R315-265-312. Landfills -- Special Requirements for Ignitable or Reactive Waste.
(a) Except as provided in Subsection R315-265-312(b), and in Section R315-265-316, ignitable or reactive waste may not be placed in a landfill, unless the waste and landfill meet the applicable requirements of Rule R315-268, and:
(1) the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Section R315-261-21 or R315-261-23; and
(2) Subsection R315-265-17(b) is complied with.
(b) Except for prohibited wastes that remain subject to treatment standards in Sections R315-268-40 through R315-268-49, ignitable wastes in containers may be landfilled without meeting the requirements of Subsection R315-265-312(a), if the wastes are disposed of in a way that they are protected from any material or conditions that may cause them to ignite. At a minimum, ignitable wastes shall be:
(1) disposed of in non-leaking containers that are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes;
(2) shall be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and
(3) may not be disposed of in cells that contain or will contain other wastes that may generate heat sufficient to cause ignition of the waste.

R315-265-313. Landfills -- Special Requirements for Incompatible Wastes.
Incompatible wastes, or incompatible wastes and materials, see appendix V for examples, may not be placed in a landfill cell together, unless Subsection R315-265-17(b) is complied with.

R315-265-314. Landfills -- Special Requirements for Bulk and Containerized Liquids.
(a) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids, whether or not sorbents have been added, in any landfill is prohibited.
(b) Containers holding free liquids may not be placed in a landfill unless:
(1) the free-standing liquid;
(i) has been removed by decanting, or other methods;
(ii) has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or
(iii) had been otherwise eliminated; or
(2) the container is very small, such as an ampule; or
(3) the container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or
(4) the container is a lab pack as defined in Section R315-265-316 and is disposed of in accordance with Section R315-265-316.
(c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test shall be used: Method 9095B, Paint Filter Liquids Test, as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, as incorporated by reference in Section R315-260-11.
(d) The date for compliance with Subsection R315-265-314(a) is November 19, 1981. The date for compliance with Subsection R315-265-314(c) is March 22, 1982.
(e) Sorbents used to treat free liquids to be disposed of in landfills shall be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in Subsection R315-265-314(e)(1), materials that pass one of the tests in Subsection R315-265-314(e)(2); or materials that are determined by the director to be nonbiodegradable through the Rule R315-260 petition process.
(1) Nonbiodegradable sorbents include:
(i) inorganic minerals, other inorganic materials, and elemental carbon such as aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas such as illite, vermiculites, zeolites; calcium carbonate, organic free limestone, oxides or hydroxides, alumina, lime, silica, sand, diatomaceous earth, perlite, volcanic

glass; expanded volcanic rock, volcanic ash, cement kiln dust, fly ash, rice hull ash, activated charcoal or activated carbon; or

(ii) high molecular weight synthetic polymers such as polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers. This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(iii) mixtures of these nonbiodegradable materials.

(2) Tests for nonbiodegradable sorbents.

(i) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70, 1984a,---Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

(ii) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76, 1984b,---Standard Practice for Determining Resistance of Plastics to Bacteria; or

(iii) The sorbent material is determined to be nonbiodegradable under OECD test 301B: (CO_2 Evolution (Modified Sturm Test)).

(f) The placement of any liquid that is not a hazardous waste in a landfill is prohibited unless the owner or operator of the landfill demonstrates to the director, or the director determines that:

(1) the only reasonably available alternative to the placement in the landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain, hazardous waste; and

(2) placement in the owner or operator's landfill will not present a risk of contamination of any "underground source of drinking water", as that term is defined in Section R315-270-2.

R315-265-315. Landfills -- Special Requirements for Containers.

Unless they are very small, such as an ampule, containers shall be either:

(a) at least 90% full when placed in the landfill; or

(b) crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

R315-265-316. Landfills -- Disposal of Small Containers of Hazardous Waste in Overpacked Drums, Lab Packs.

Small containers of hazardous waste in overpacked drums, lab packs, may be placed in a landfill if the following requirements are met:

(a) Hazardous waste shall be packaged in non-leaking inside containers. The inside containers shall be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the waste held therein. Inside containers shall be tightly and securely sealed. The inside containers shall be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations, 49 CFR parts 173, 178 and 179, if those regulations specify a particular inside container for the waste.

(b) The inside containers shall be overpacked in an open head DOT-specification metal shipping container, 49 CFR parts 178 and 179, of no more than 416-liter, 110 gallon, capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with Subsection R315-265-314(e), to completely sorb the liquid contents of the inside containers. The metal outer container shall be full after it has been packed with inside containers and sorbent material.

(c) The sorbent material used may not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers in accordance with Subsection R315-265-17(b).

(d) Incompatible wastes, as defined in Section R315-260-10, may not be placed in an outside container together.

(e) Reactive waste, other than cyanide- or sulfide-bearing waste as defined in Subsection R315-261-23(a)(5), shall be treated or made non-reactive before packaging in accordance with Subsections R315-265-316(a) through R315-265-316(d). Cyanide- and sulfide-bearing reactive waste may be packaged in accordance with Subsections R315-265-316(a) through R315-265-316(d) without first being treated or made non-reactive.

(f) This disposal is in compliance with the requirements of Rule R315-268. Persons who incinerate lab packs according to the requirements in Subsection R315-268-42(c)(1) may use fiber drums in place of metal outer containers. Fiber drums shall meet the DOT specifications in 49 CFR 173.12 and be overpacked according to the requirements in Subsection R315-265-316(b).

R315-265-340. Incinerators -- Applicability.

(a) Sections R315-265-340 through R315-265-352 apply to owners and operators of hazardous waste incinerators, as defined in Subsection R315-260-10(c)(71), except as Section R315-265-1 provides otherwise.

(b) Integration of MACT standards.

(1) Except as provided by Subsections R315-265-340(b)(2) and R315-265-340(b)(3), the standards of Rule R315-265 no longer apply if an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR part 63, subpart EEE, by conducting a comprehensive performance test and submitting to the director a Notification of Compliance in accordance with 40 CFR 63.1207(j) and 40 CFR 63.1210(d) documenting compliance with the requirements of 40 CFR part 63, subpart EEE.

(2) The MACT standards do not replace the closure requirements of Section R315-264-351 or the applicable requirements of Sections R315-265-1 through R315-265-150, R315-265-1050 through R315-265-1064, and R315-265-1080 through R315-265-1090.

(3) Section R315-265-345 generally prohibiting burning of hazardous waste during startup and shutdown remains in effect if the owner or operator elects to comply with Subsection R315-270-235(b)(1)(i) to minimize emissions of toxic compounds from

startup and shutdown.

(c) Owners and operators of incinerators burning hazardous waste are exempt from the requirements of Sections R315-265-340 through R315-265-352, except Section R315-265-351, Closure, if the owner or operator has documented, in writing, that the waste would not reasonably be expected to contain any of the hazardous constituents listed in Section R315-261-1092, which incorporates Appendix VIII to 40 CFR Part 261 by reference, and the documentation is kept at the facility, if the waste to be burned is:

(1) listed as a hazardous waste in Sections R315-261-30 through R315-261-35 solely because it is ignitable, Hazard Code I, corrosive, Hazard Code C, or both; or

(2) listed as a hazardous waste in Sections R315-261-30 through R315-261-35 solely because it is reactive, Hazard Code R, for characteristics other than those listed in Subsections R315-261-23(a)(4) and R315-261-23(a)(5), and will not be burned if other hazardous wastes are present in the combustion zone; or

(3) a hazardous waste solely because it has the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under Sections R315-261-20 through R315-261-24; or

(4) a hazardous waste solely because it has the reactivity characteristics described by Subsection R315-261-23(a)(1), R315-261-23(a)(2), R315-261-23(a)(3), R315-261-23(a)(6), R315-261-23(a)(7), or R315-261-23(a)(8), and will not be burned if other hazardous wastes are present in the combustion zone.

R315-265-341. Incinerators -- Waste Analysis.

In addition to the waste analyses required by Section R315-265-13, the owner or operator shall sufficiently analyze any waste that has not previously burned in the owner or operator's incinerator to enable the owner or operator to establish steady state, normal, operating conditions, including waste and auxiliary fuel feed and air flow, and to determine the type of pollutants that might be emitted. At a minimum, the analysis shall determine:

(a) the heating value of the waste;

(b) the halogen content and sulfur content in the waste; and

(c) the concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

(d) As required by Section R315-265-73, the owner or operator shall place the results from each waste analysis, or the documented information, in the operating record of the facility.

R315-265-345. Incinerators -- General Operating Requirements.

During startup and shutdown of an incinerator, the owner or operator may not feed hazardous waste unless the incinerator is at steady state, normal, conditions of operation, including steady state operating temperature and air flow.

R315-265-347. Incinerators -- Monitoring and Inspections.

The owner or operator shall conduct, as a minimum, the following monitoring and inspections when incinerating hazardous waste:

(a) Existing instruments that relate to combustion and emission control shall be monitored at least every 15 minutes. Appropriate corrections to maintain steady state combustion conditions shall be made immediately either automatically or by the operator. Instruments that relate to combustion and emission control would normally include those measuring waste feed, auxiliary fuel feed, air flow, incinerator temperature, scrubber flow, scrubber pH, and relevant level controls.

(b) The complete incinerator and associated equipment, for example pumps, valves, conveyors, pipes, shall be inspected at least daily for leaks, spills, and fugitive emissions, and the emergency shutdown controls and system alarms shall be checked to assure proper operation.

R315-265-351. Incinerators -- Closure.

(a) At closure, the owner or operator shall remove the hazardous waste and hazardous waste residues, including ash, scrubber waters, and scrubber sludges, from the incinerator.

(b) At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with Subsection R315-261-3(d), that the residue removed from the owner or operator's incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with the applicable requirements of Rules R315-262 through R315-266.

R315-265-352. Incinerators -- Interim Status Incinerators Burning Particular Hazardous Wastes.

(a) Owners or operators of incinerators subject to Sections R315-265-340 through R315-265-352 may burn EPA Hazardous Wastes FO20, FO21, FO22, FO23, FO26, or FO27 if they receive a certification from the director that they can meet the performance standards of Sections R315-264-340 through R315-265-351 when these wastes are burned.

(b) The following standards and procedures shall be used in determining whether to certify an incinerator:

(1) The owner or operator shall submit an application to the director containing applicable information in Sections R315-270-19 and R315-270-62 demonstrating that the incinerator can meet the performance standards in Sections R315-264-340 through R315-265-351 when these wastes are burned.

(2) The director shall issue a tentative decision as to whether the incinerator can meet the performance standards in Sections R315-264-340 through R315-265-351. Notification of this tentative decision shall be provided by newspaper advertisement and radio broadcast in the jurisdiction where the incinerator is located. The director shall accept comment on the tentative decision for 60 days.

The director also may hold a public hearing upon request or at the director's discretion.

(3) After the close of the public comment period, the director shall issue a decision whether or not to certify the incinerator.

R315-265-440. Drip Pads -- Applicability.

(a) The requirements of Sections R315-265-440 through R315-265-445 apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation, and surface water run-off or any combination of the three to an associated collection system. Existing drip pads are those constructed before December 6, 1990 and those that the owner or operator has a design and has entered into binding financial or other agreements for construction before December 6, 1990. Any other drip pads are new drip pads. The requirement at Subsection R315-265-443(b)(3) to install a leak collection system applies only to those drip pads that are constructed after December 24, 1992 except for those constructed after December 24, 1992 that the owner or operator has a design and has entered into binding financial or other agreements for construction before December 24, 1992.

(b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to Subsection R315-265-443(e) or R315-265-443(f), as appropriate.

(c) The requirements of Sections R315-265-440 through R315-265-445 are not applicable to the management of infrequent and incidental drippage in storage yards if:

(1) the owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of the infrequent and incidental drippage. At a minimum, the contingency plan shall describe how the facility will do the following:

(i) clean up the drippage;

(ii) document the cleanup of the drippage;

(iii) keep documents regarding cleanup for three years; and

(iv) manage the contaminated media in a manner consistent with Title R315.

R315-265-441. Drip Pads -- Assessment of Existing Drip Pad Integrity.

(a) For each existing drip pad as defined in Section R315-265-440, the owner or operator shall evaluate the drip pad and determine that it meets the requirements of Sections R315-265-440 through R315-265-445, except the requirements for liners and leak detection systems specified in Subsection R315-265-443(b). No later than the effective date of this rule, the owner or operator shall get and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified professional engineer that attests to the results of the evaluation. The assessment shall be reviewed, updated, and recertified annually until the upgrades, repairs, or modifications necessary to achieve compliance with the standards of Section R315-265-443 are finished. The evaluation shall document the extent that the drip pad meets each of the design and operating standards of Section R315-265-443, except the standards for liners and leak detection systems, specified in Subsection R315-265-443(b).

(b) The owner or operator shall develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of Subsection R315-265-443(b), and submit the plan to the director no later than two years before the date that the repairs, upgrades, and modifications are finished. This written plan shall describe each change to be made to the drip pad in sufficient detail to document compliance with the requirements of Section R315-265-443. The plan shall be reviewed and certified by a qualified professional engineer.

(c) Upon completion of the repairs and modifications, the owner or operator shall submit to the director the as-built drawings for the drip pad together with a certification by a qualified professional engineer attesting that the drip pad conforms to the drawings.

(d) If the drip pad is found to be leaking or unfit for use, the owner or operator shall comply with Subsection R315-265-443(m) or close the drip pad in accordance with Section R315-265-445.

R315-265-442. Drip Pads -- Design and Installation of New Drip Pads.

Owners and operators of new drip pads shall ensure that the pads are designed, installed, and operated in accordance with one of the following:

(a) the applicable requirements of Section R315-265-443, except Subsection R315-265-443(a)(4), Sections R315-265-444 and R315-265-445; or

(b) the applicable requirements of Section R315-265-443, except Subsection R315-265-443(b), Sections R315-265-444 and R315-265-445.

R315-265-443. Drip Pads -- Design and Operating Requirements.

(a) Drip pads shall:

(1) be constructed of non-earthen materials, excluding wood and non-structurally supported asphalt;

(2) be sloped to free-drain treated wood drippage, rain and other waters, or solutions of drippage and water or other wastes to the associated collection system;

(3) have a curb or berm around the perimeter;

(4)(i) have a hydraulic conductivity of less than or equal to $1x10^{-7}$ centimeters per second, for example, existing concrete drip pads shall be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to $1x10^{-7}$ centimeters per second so that the entire surface where drippage occurs or may run across is capable of containing the drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material shall be maintained free of cracks and gaps that could adversely affect its hydraulic conductivity, and the material shall be chemically compatible with the preservatives that contact the drip pad. The requirements of this provision apply only to existing drip

pads and those drip pads that the owner or operator elects to comply with Subsection R315-265-442(b) instead of Subsection R315-265-442(a); and

(ii) the owner or operator shall get and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified professional engineer that attests to the results of the evaluation. The assessment shall be reviewed, updated and recertified annually. The evaluation shall document the extent that the drip pad meets the design and operating standards of Section R315-265-443, except for Subsection R315-265-443(b); and

(5) be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of installation, and the stress of daily operations, for example, variable and moving loads such as vehicle traffic and movement of wood. The director will generally consider applicable standards established by professional organizations generally recognized by industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirement of Subsection R315-265-443(a).

(b) If an owner or operator elects to comply with Subsection R315-265-442(a) instead of Subsection R315-265-442(b), the drip pad shall have:

(1) a synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or groundwater or surface water at any time during the active life, including the closure period, of the drip pad. The liner shall be constructed of materials that will prevent waste from being absorbed into the liner and prevent releases into the adjacent subsurface soil or ground water or surface water during the active life of the facility. The liner shall be:

(i) constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces, physical contact with the waste or drip pad leakage that they are exposed, climatic conditions, the stress of installation, and the stress of daily operation, including stresses from vehicular traffic on the drip pad;

(ii) placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

(iii) installed to cover the surrounding earth that could come in contact with the waste or leakage; and

(2) a leakage detection system immediately above the liner that is designed, constructed, maintained and operated to detect leakage from the drip pad. The leakage detection system shall be:

(i) constructed of materials that are:

(A) chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

(B) of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying materials and by any equipment used at the drip pad; and

(ii) designed and operated to function without clogging through the scheduled closure of the drip pad; and

(iii) designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time; and

(3) a leakage collection system immediately above the liner that is designed, constructed, maintained and operated to collect leakage from the drip pad so that it can be removed from below the drip pad. The date, time, and quantity of any leakage collected in this system and removed shall be documented in the operating log.

(c) Drip pads shall be maintained so that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad. See Subsection R315-265-443(m) for remedial action required if deterioration or leakage is detected.

(d) The drip pad and associated collection system shall be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation to prevent run-off.

(e) Unless protected by a structure, as described in Subsection R315-265-440(b), the owner or operator shall design, construct, operate and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a 24-hour, 25-year storm unless the system has sufficient excess capacity to contain any run-on that might enter the system, or the drip pad is protected by a structure or cover, as described in Subsection R315-265-440(b).

(f) Unless protected by a structure or cover, as described in Subsection R315-265-440(b), the owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(g) The drip pad shall be evaluated to determine that it meets the requirements of Subsections R315-265-443(a) through R315-265-443(f) and the owner or operator shall get a statement from a qualified professional engineer certifying that the drip pad design meets the requirements of Section R315-265-443.

(h) Drippage and accumulated precipitation shall be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

(i) The drip pad surface shall be cleaned thoroughly in a manner and frequency so that accumulated residues of hazardous waste or other materials are removed, with residues being properly managed as hazardous waste, to allow weekly inspections of the entire drip pad surface without interference or hindrance from accumulated residues of hazardous waste or other materials on the drip pad. The owner or operator shall document the date and time of each cleaning and the cleaning procedure used in the facility's operating log.

(j) Drip pads shall be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

(k) After being removed from the treatment vessel, treated wood from pressure and non-pressure processes shall be held on the drip pad until drippage has stopped. The owner or operator shall maintain records sufficient to document that the treated wood is

held on the pad following treatment in accordance with this requirement.

(l) Collection and holding units associated with run-on and run-off control systems shall be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

(m) Throughout the active life of the drip pad, if the owner or operator detects a condition that may have caused or has caused a release of hazardous waste, the condition shall be repaired within a reasonably prompt period following discovery, in accordance with the following procedures:

(1) Upon detection of a condition that may have caused or has caused a release of hazardous waste, for example, upon detection of leakage by the leak detection system, the owner or operator shall:

(i) enter a record of the discovery in the facility operating log;

(ii) immediately remove the portion of the drip pad affected by the condition from service;

(iii) determine what steps shall be taken to repair the drip pad, remove any leakage from below the drip pad, and establish a schedule for accomplishing the clean up and repairs; and

(iv) within 24 hours after discovery of the condition, notify the director of the condition and, within ten working days, provide a written notice to the director with a description of the steps that will be taken to repair the drip pad, and clean up any leakage, and the schedule for accomplishing this work.

(2) The director will review the information submitted, make a determination regarding whether the pad shall be removed from service completely or partially until repairs and clean up are finished, and notify the owner or operator of the determination and the underlying rationale in writing.

(3) Upon completing the repairs and clean up, the owner or operator shall notify the director in writing and provide a certification, signed by an independent qualified, registered professional engineer, that the repairs and clean up have been finished according to the written plan submitted in accordance with Subsection R315-265-443(m)(1)(iv).

(n) The owner or operator shall maintain, as part of the facility operating log, documentation of past operating and waste handling practices. This shall include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.

R315-265-444. Drip Pads -- Inspections.

(a) During construction or installation, liners and cover systems, for example, membranes, sheets, or coatings, shall be inspected for uniformity, damage and imperfections, for example, holes, cracks, thin spots, or foreign materials. Immediately after construction or installation, liners shall be inspected and certified as meeting the requirements of Section R315-265-443 by a qualified professional engineer. This certification shall be maintained at the facility as part of the facility operating record. After installation, liners and covers shall be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a drip pad is in operation, it shall be inspected weekly and after storms to detect evidence of any of the following:

(1) Deterioration, malfunctions or improper operation of run-on and run-off control systems.

(2) The presence of leakage in and proper functioning of leakage detection system.

(3) Deterioration or cracking of the drip pad surface. See Subsection R315-265-44(m) for remedial action required if deterioration or leakage is detected.

R315-265-445. Drip Pads -- Closure.

(a) At closure, the owner or operator shall remove or decontaminate the waste residues, contaminated containment system components such as pads or liners, contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

(b) If, after removing or decontaminating residues and making reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-265-445(a), the owner or operator finds that contaminated subsoils cannot be practically removed or decontaminated, the owner or operator shall close the facility and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills, see Section R315-265-310. For permitted units, the requirement to have a permit continues throughout the post-closure period.

(c)(1) The owner or operator of an existing drip pad, as defined in Section R315-265-440, that does not comply with the liner requirements of Subsection R315-265-443(b)(1) shall:

(i) include in the closure plan for the drip pad under Section R315-265-112 both a plan for complying with Subsection R315-265-445(a) and a contingent plan for complying with Subsection R315-265-445(b) in case contaminated subsoils cannot be practicably removed at closure; and

(ii) prepare a contingent post-closure plan under Section R315-265-118 for complying with Subsection R315-265-445(b) in case contaminated subsoils cannot be practicably removed at closure.

(2) The cost estimates calculated under Sections R315-265-112 and R315-265-144 for closure and post-closure care of a drip pad subject to Subsection R315-265-445(c) shall include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under Subsection R315-265-445(a).

R315-265-1030. Air Emission Standards for Process Vents--Applicability.

(a) The regulations in Sections R315-265-1030 through R315-265-1035 apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes, except as provided in Section R315-265-1.

(b) Except for Subsections R315-265-1034(d) and R315-265-1034(e), Sections R315-265-1030 through R315-265-1035 apply to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that

manage hazardous wastes with organic concentrations of at least 10 ppmw, if these operations are conducted in one of the following:

(1) A unit that is subject to the permitting requirements of Rule R315-270; or

(2) A unit, including a hazardous waste recycling unit, that is not exempt from permitting under the provisions of Section R315-262-17, for example, a hazardous waste recycling unit that is not a 90-day tank or container, and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of Rule R315-270; or

(3) A unit that is exempt from permitting under the provisions of Section R315-262-17, for example, a 90-day tank or container, and is not a recycling unit under the requirements of Section R315-261-6.

(4) The requirements of Sections R315-265-1032 through R315-265-1035 apply to process vents on hazardous waste recycling units previously exempt under Subsection R315-261-6(c)(1). Other exemptions under Section R315-261-4, and Subsection R315-265-1(c) are not affected by these requirements.

(c) Reserved.

(d) The requirements of Sections R315-265-1030 through R315-265-1035 do not apply to the process vents at a facility where the facility owner or operator certifies that all of the process vents that would otherwise be subject to Sections R315-265-1030 through R315-265-1035 are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63. The documentation of compliance under regulations at 40 CFR part 60, part 61, or part 63 shall be kept with, or made readily available with, the facility operating record.

R315-265-1031. Air Emission Standards for Process Vents--Definitions.

As used in Sections R315-265-1030 through R315-265-1035, all terms shall have the meaning given them in Section R315-264-1031, RCRA, and Rules R315-260 through R315-266.

R315-265-1032. Air Emission Standards for Process Vents--Standards: Process Vents.

(a) The owner or operator of a facility with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction or air or steam stripping operations managing hazardous wastes with organic concentrations at least 10 ppmw shall either:

(1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h, 3 lb/h, and 2.8 Mg/yr, 3.1 tons/yr, or

(2) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

(b) If the owner or operator installs a closed-vent system and control device to comply with the provisions of Subsection R315-265-1032(a), the closed-vent system and control device shall meet the requirements of Section R315-265-1033.

(c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices may be based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests shall conform with the requirements of Subsection R315-265-1034(c).

(d) If an owner or operator and the Director do not agree on determinations of vent emissions and emission reductions or both or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the test methods in Subsection R315-265-1034(c) shall be used to resolve the disagreement.

R315-265-1033. Air Emission Standards for Process Vents--Standards: Closed-Vent Systems and Control Devices.

(a)(1) Owners or operators of closed-vent systems and control devices used to comply with provisions of Sections R315-265-1030 through R315-265-1035 shall comply with the provisions of Section R315-265-1033.

(2)(i) The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of Sections R315-265-1030 through R315-265-1035 on the effective date that the facility becomes subject to the requirements of Sections R315-265-1030 through R315-265-1035 shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to Sections R315-265-1030 through R315-265-1035 for installation and startup.

(ii) Any unit that begins operation after December 21, 1990, and is subject to the requirements of Sections R315-265-1030 through R315-265-1035 when operation begins, shall comply with the rules immediately, for example, shall have control devices installed and operating on startup of the affected unit; the 30-month implementation schedule does not apply.

(iii) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to Sections R315-265-1030 through R315-265-1035 shall comply with all requirements of Sections R315-265-1030 through R315-265-1035 as soon as practicable but no later than 30 months after the amendment's effective date. If control equipment required by Sections R315-265-1030 through R315-265-1035 cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information: Specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of Sections R315-265-1030 through R315-265-1035. The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

(iv) Owners and operators of facilities and units that become newly subject to the requirements of Sections R315-265-1030 through R315-265-1035 after December 8, 1997, due to an action other than those described in Subsection R315-265-1033(a)(2)(iii) shall comply with all applicable requirements immediately, for example, shall have control devices installed and operating on the date the facility or unit becomes subject to Sections R315-265-1030 through R315-265-1035; the 30-month implementation schedule does not apply.

(b) A control device involving vapor recovery, for example, a condenser or adsorber, shall be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Subsection R315-265-1032(a)(1) for all affected process vents can be attained at an efficiency less than 95 weight percent.

(c) An enclosed combustion device, for example, a vapor incinerator, boiler, or process heater, shall be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 degrees Celsius. If a boiler or process heater is used as the control device, then the vent stream shall be introduced into the flame combustion zone of the boiler or process heater.

(d)(1) A flare shall be designed for and operated with no visible emissions as determined by the methods specified in Subsection R315-265-1033(e)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(2) A flare shall be operated with a flame present at all times, as determined by the methods specified in Subsection R315-265-1033(f)(2)(iii).

(3) A flare shall be used only if the net heating value of the gas being combusted is 11.2 MJ/scm, 300 Btu/scf, or greater, if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm, 200 Btu/scf, or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in Subsection R315-265-1033(e)(2).

(4)(i) A steam-assisted or nonassisted flare shall be designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-265-1033(e)(3), of less than 18.3 m/s, 60 ft/s, except as provided in Subsections R315-265-1033(d)(4)(ii) and R315-265-1033(d)(4)(iii).

(ii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-265-1033(e)(3), equal to or greater than 18.3 m/s, 60 ft/s, but less than 122 m/s, 400 ft/s, is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm, 1,000 Btu/scf.

(iii) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in Subsection R315-265-1033 (e)(3), less than the velocity, Vmax, as determined by the method specified in Subsection R315-265-1033(e)(4), and less than 122 m/s, 400 ft/s, is allowed.

(5) An air-assisted flare shall be designed and operated with an exit velocity less than the velocity, Vmax, as determined by the method specified in Subsection R315-265-1033(e)(5).

(6) A flare used to comply with Section R315-265-1033 shall be steam-assisted, air-assisted, or nonassisted.

(e)(1) Reference Method 22 in 40 CFR part 60 shall be used to determine the compliance of a flare with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The net heating value of the gas being combusted in a flare shall be calculated using the equation found in 40 CFR 265.1033(e)(2), which is adopted and incorporated by reference.

(3) The actual exit velocity of a flare shall be determined by dividing the volumetric flow rate, in units of standard temperature and pressure, as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR part 60 as appropriate, by the unobstructed, free, cross-sectional area of the flare tip.

(4) The maximum allowed velocity in m/s, Vmax, for a flare complying with Subsesction R315-265-1033(d)(4)(iii) shall be determined by the following equation:

$\text{Log10}(V_{max}) = (HT + 28.8)/31.7$

where:

HT = The net heating value as determined in Subsection R315-265-1033(e)(2).

28.8 = Constant.

31.7 = Constant.

(5) The maximum allowed velocity in m/s, Vmax, for an air-assisted flare shall be determined by the following equation:

$V_{max} = 8.706 + 0.7084(HT)$

where:

8.706 = Constant.

0.7084 = Constant.

HT = The net heating value as determined in Subsection R315-265-1033(e)(2).

(f) The owner or operator shall monitor and inspect each control device required to comply with Section R315-265-1033 to ensure proper operation and maintenance of the control device by implementing the following requirements:

(1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor shall be installed in the vent stream at the nearest feasible point to the control device inlet, but before being combined with other vent streams.

(2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

(i) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of plus or minus 1 percent of the temperature being monitored in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. The temperature sensor shall be installed at a location in the combustion chamber downstream of the combustion zone.

(ii) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature at two locations and have an accuracy of plus or minus 1 percent of the temperature being monitored in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. One temperature sensor shall be installed in the vent stream at

the nearest feasible point to the catalyst bed inlet and a second temperature sensor shall be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

(iii) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

(iv) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device shall have an accuracy of plus or minus 1 percent of the temperature being monitored in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. The temperature sensor shall be installed at a location in the furnace downstream of the combustion zone.

(v) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter or parameters that indicate good combustion operating practices are being used.

(vi) For a condenser, either:

(A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or

(B) A temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of plus or minus 1 percent of the temperature being monitored in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. The temperature sensor shall be installed at a location in the exhaust vent stream from the condenser exit, for example, product side.

(vii) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, either:

(A) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or

(B) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

(3) Inspect the readings from each monitoring device required by Subsections R315-265-1033(f) (1) and R315-265-1033(f)(2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of Section R315-265-1033.

(g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device, shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Subsection R315-265-1035(b)(4)(iii)(F).

(h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

(1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule and replace the existing carbon with fresh carbon immediately if carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Subsection R315-265-1035(b)(4)(iii)(G), whichever is longer.

(2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Subsection R315-265-1035(b)(4)(iii)(G).

(i) An owner or operator of an affected facility seeking to comply with the provisions of Sections R315-265-1030 through R315-265-1035 by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

(j) A closed-vent system shall meet either of the following design requirements:

(1) A closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure in Subsection R315-265-1034(b), and by visual inspections; or

(2) A closed-vent system shall be designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system if the control device is operating.

(k) The owner or operator shall monitor and inspect each closed-vent system required to comply with Section R315-265-1033 to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:

(1) Each closed-vent system that is used to comply with Subsection R315-265-1033(j)(1) shall be inspected and monitored in accordance with the following requirements:

(i) An initial leak detection monitoring of the closed-vent system shall be conducted by the owner or operator on or before the date that the system becomes subject to Section R315-265-1033. The owner or operator shall monitor the closed-vent system components and connections using the procedures specified in Subsection R315-265-1034(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.

(ii) After initial leak detection monitoring required in Subsection R315-265-1033(k)(1)(i), the owner or operator shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed, for example, a welded joint between two sections of hard piping or a bolted and gasketed ducting flange, shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator shall monitor a component or connection using the

procedures specified in Subsection R315-265-1034(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced, for example, a section of damaged hard piping is replaced with new hard piping, or the connection is unsealed, for example, a flange is unbolted.

(B) Closed-vent system components or connections other than those specified in Subsection R315-265-1033(k)(1)(ii)(A) shall be monitored annually and at other times as requested by the Director, except as provided for in Subsection R315-265-1033(n), using the procedures specified in Subsection R315-265-1034(b) to demonstrate that the components or connections operate with no detectable emissions.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of Subsection R315-265-1033(k)(3).

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section R315-265-1035.

(2) Each closed-vent system that is used to comply with Subsection R315-265-1033(j)(2) shall be inspected and monitored in accordance with the following requirements:

(i) The closed-vent system shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.

(ii) The owner or operator shall perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to Section R315-265-1033. Thereafter, the owner or operator shall perform the inspections at least once every year.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1033(k)(3).

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in Section R315-265-1035.

(3) The owner or operator shall repair all detected defects as follows:

(i) Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in Subsection R315-265-1033(k)(3)(iii).

(ii) A first attempt at repair shall be made no later than 5 calendar days after the emission is detected.

(iii) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.

(iv) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in Section R315-265-1035.

(l) Closed-vent systems and control devices used to comply with provisions of Sections R315-265-1030 through R315-265-1035 shall be operated at all times if emissions may be vented to them.

(m) The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon:

(1) Regenerated or reactivated in a thermal treatment unit that meets one of the following:

(i) The owner or operator of the unit has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-600 through R315-264-603; or

(ii) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Sections R315-265-1030 through R315-265-1035 and Sections R315-265-1080 through R315-265-1090 or of Sections R315-264-1030 through R315-264-1036 and Sections R315-264-1080 through R315-264-1090; or

(iii) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR part 61 or 40 CFR part 63.

(2) Incinerated in a hazardous waste incinerator for which the owner or operator either:

(i) Has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-340 through R315-264-351; or

(ii) Has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR 265.340 through 352, which are adopted and incorporated by reference.

(3) Burned in a boiler or industrial furnace for which the owner or operator either:

(i) Has been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-266-100 through R315-266-112; or

(ii) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Sections R315-266-100 through R315-266-112.

(n) Any components of a closed-vent system that are designated, as described in Subsection R315-265-1035(c)(9), as unsafe to monitor are exempt from the requirements of Subsection R315-265-1033(k)(1)(ii)(B) if:

(1) The owner or operator of the closed-vent system determines that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Subsection R315-265-1033(k)(1)(ii)(B); and

(2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in Subsection R315-265-1033(k)(1)(ii)(B) as frequently as practicable during safe-to-monitor

times.

R315-265-1034. Air Emission Standards for Process Vents--Test Methods and Procedures.

(a) Each owner or operator subject to Sections R315-265-1030 through R315-265-1035 shall comply with the test methods and procedures requirements provided in Section R315-265-1034.

(b) If a closed-vent system is tested for compliance with no detectable emissions, as required in Subsection R315-265-1033(k), the test shall comply with the following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) Zero air, less than ten ppm of hydrocarbon in air.

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

(5) The background level shall be determined as set forth in Reference Method 21.

(6) The instrument probe shall be traversed around any potential leak interfaces as close to the interface as possible as described in Reference Method 21.

(7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(c) Performance tests to determine compliance with Subsection R315-265-1032(a) and with the total organic compound concentration limit of Subsection R315-265.1033(c) shall comply with the following:

(1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices shall be conducted and data reduced in accordance with the following reference methods and calculation procedures:

(i) Method 2 in 40 CFR part 60 for velocity and volumetric flow rate.

(ii) Method 18 or Method 25A in 40 CFR part 60, appendix A, for organic content. If Method 25A is used, the organic HAP used as the calibration gas shall be the single organic HAP representing the largest percent by volume of the emissions. The use of Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas if the instrument is zeroed on the most sensitive scale.

(iii) Each performance test shall consist of three separate runs; each run conducted for at least one hour under the conditions that exist if the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. To determining total organic compound concentrations and mass flow rates, the average of results of the runs shall apply. The average shall be computed on a time-weighted basis.

(iv) Total organic mass flow rates shall be determined by the following equation:

(A) For sources utilizing Method 18 the equation found in 40 CFR 264.1034(c)(1)(iv)(A), is incorporated by reference.

Where:

Eh = Total organic mass flow rate, kg/h.

Q2sd = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h.

n = Number of organic compounds in the vent gas.

Ci = Organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18.

MWi = Molecular weight of organic compound i in the vent gas, kg/kg-mol.

0.0416 = Conversion factor for molar volume, kg-mol/m^3 (@ 293 K and 760 mm Hg).

10−6 = Conversion from ppm.

(B) For sources utilizing Method 25A.

Eh = (Q)(C)(MW)(0.0416)(10−6).

Where:

Eh = Total organic mass flow rate, kg/h.

Q = Volumetric flow rate of gases entering or exiting control device, as determined by Method 2, dscm/h.

C = Organic concentration in ppm, dry basis, as determined by Method 25A.

MW = Molecular weight of propane, 44.

0.0416 = Conversion factor for molar volume, kg-mol/m^3 (@ 293 K and 760 mm Hg).

10−6 = Conversion from ppm.

(v) The annual total organic emission rate shall be determined by the following equation:

EA = (Eh) (H).

Where:

EA = Total organic mass emission rate, kg/y.

Eh = Total organic mass flow rate for the process vent, kg/h.

H = Total annual hours of operations for the affected unit, h.

(vi) Total organic emissions from each affected process vent at the facility shall be determined by summing the hourly total organic mass emission rates, Eh, as determined in Subsection R315-265-1034(c)(1)(iv), and by summing the annual total organic mass emission rates, EA, as determined in Subsection R315-265-1034(c)(1)(v), for each affected process vent at the facility.

(2) The owner or operator shall record the process information as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for a

performance test.

(3) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for the test methods specified in Subsection R315-265-1034(c)(1).

(ii) Safe sampling platforms.

(iii) Safe access to sampling platforms.

(iv) Utilities for sampling and testing equipment.

(4) To make compliance determinations, the time-weighted average of the results of the three runs shall apply. a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the director's approval, be determined using the average of the results of the two other runs.

(d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of Sections R315-265-1030 through R315-265-1035, the owner or operator shall make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than ten ppmw using one of the following two methods:

(1) Direct measurement of the organic concentration of the waste using the following procedures:

(i) The owner or operator shall take a minimum of four grab samples of waste for each waste stream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

(ii) For waste generated onsite, the grab samples shall be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples shall be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

(iii) Each sample shall be analyzed and the total organic concentration of the sample shall be computed using Method 9060A, incorporated by reference in Section R315-260-11, of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846; or analyzed for its individual organic constituents.

(iv) The arithmetic mean of the results of the analyses of the four samples shall apply for each waste stream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each waste stream managed in the unit.

(2) Using knowledge of the waste to determine that its total organic concentration is less than ten ppmw. Documentation of the waste determination is required. Examples of documentation that shall be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a waste stream having a total organic content less than ten ppmw, or earlier speciation analysis results on the same waste stream where it can also be documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

(e) The determination that distillation fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations manage hazardous wastes with time-weighted annual average total organic concentrations less than ten ppmw shall be made as follows:

(1) by the effective date that the facility becomes subject to Sections R315-265-1030 through R315-265-1035 or by the date when the waste is first managed in a waste management unit, whichever is later; and

(2) for continuously generated waste, annually; or

(3) if there is a change in the waste being managed or a change in the process that generates or treats the waste.

(f) If an owner or operator and the director do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least ten ppmw based on knowledge of the waste, the dispute may be resolved using direct measurement as specified at Subsection R315-265-1034(d)(1).

R315-265-1035. Air Emission Standards for Process Vents--Recordkeeping Requirements.

(a)(1) Each owner or operator subject to the provisions of Sections R315-265-1030 through R315-265-1035 shall comply with the recordkeeping requirements of Section R315-265-1035.

(2) An owner or operator of more than one hazardous waste management unit subject to the provisions of Sections R315-265-1030 through R315-265-1035 may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

(b) Owners and operators shall record the following information in the facility operating record:

(1) For facilities that comply with the provisions of Subsection R315-265-1033(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule shall also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule shall be in the facility operating record by the effective date that the facility becomes subject to the provisions of Sections R315-265-1030 through R315-265-1035.

(2) Up-to-date documentation of compliance with the process vent standards in Section R315-265-1032, including:

(i) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit,

estimated emission rates for each affected vent and for the overall facility, for example, the total emissions for all affected vents at the facility, and the approximate location within the facility of each affected unit, for example, identify the hazardous waste management units on a facility plot plan; and

(ii) Information and data supporting determinations of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions shall be made using operating parameter values, for example, temperatures, flow rates or vent stream organic compounds and concentrations, that represent the conditions that result in maximum organic emissions, such as if the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action, for example, managing a waste of different composition or increasing operating hours of affected waste management units, that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

(3) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan shall include:

(i) A description of how it is determined that the planned test is going to be conducted if the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

(ii) A detailed engineering description of the closed-vent system and control device including:

(A) Manufacturer's name and model number of control device.

(B) Type of control device.

(C) Dimensions of the control device.

(D) Capacity.

(E) Construction materials.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(4) Documentation of compliance with Section R315-265-1033 shall include the following information:

(i) A list of all information references and sources used in preparing the documentation.

(ii) Records, including the dates, of each compliance test required by Subsection R315-265-1033(j).

(iii) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions", incorporated by reference as specified in Section R315-260-11, or other engineering texts acceptable to the Director that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsections R315-265-1035(b)(4)(iii)(A) through R315-265-1035(b)(4)(iii)(G) may be used to comply with this requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as specified below.

(A) For a thermal vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

(B) For a catalytic vapor incinerator, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

(C) For a boiler or process heater, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also establish the design minimum and average flame zone temperatures, combustion zone residence time, and description of method and location where the vent stream is introduced into the combustion zone.

(D) For a flare, the design analysis shall consider the vent stream composition, constituent concentrations, and flow rate. The design analysis shall also consider the requirements specified in Subsection R315-265-1033(d).

(E) For a condenser, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream, and design average temperatures of the coolant fluid at the condenser inlet and outlet.

(F) For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling and drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time, and design service life of carbon.

(G) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(iv) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist if the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(v) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Subsection R315-265-1032(a) is achieved at an efficiency less than

95 weight percent or the total organic emission limits of Subsection R315-265-1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

(vi) If performance tests are used to demonstrate compliance, all test results.

(c) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Sections R315-265-1030 through R315-265-1035 shall be recorded and kept up-to-date in the facility operating record. The information shall include:

(1) Description and date of each modification that is made to the closed-vent system or control device design.

(2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Subsections R315-265-1033(f)(1) and R315-265-1035(f)(2).

(3) Monitoring, operating and inspection information required by Subsections R315-265-1033(f) through R315-265-1033(k).

(4) Date, time, and duration of each period that occurs while the control device is operating if any monitored parameter exceeds the value established in the control device design analysis as specified below:

(i) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 seconds at a minimum temperature of 760 degrees Celsius, period if the combustion temperature is below 760 degrees Celsius.

(ii) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 percent or greater, period if the combustion zone temperature is more than 28 degrees Celsius below the design average combustion zone temperature established as a requirement of Subsection R315-265-1035(b)(4)(iii)(A).

(iii) For a catalytic vapor incinerator, period if:

(A) Temperature of the vent stream at the catalyst bed inlet is more than 28 degrees Celsius below the average temperature of the inlet vent stream established as a requirement of Subsection R315-265-1035(b)(4)(iii)(B); or

(B) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of Subsection R315-265-1035(b)(4)(iii)(B).

(iv) For a boiler or process heater, period if:

(A) Flame zone temperature is more than 28 degrees Celsius below the design average flame zone temperature established as a requirement of Subsection R315-265-1035(b)(4)(iii)(C); or

(B) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of Subsection R315-265-1035(b)(4)(iii)(C).

(v) For a flare, period if the pilot flame is not ignited.

(vi) For a condenser that complies with Subsection R315-265-1033(f)(2)(vi)(A), period if the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of Subsection R315-265-1035(b)(4)(iii)(E).

(vii) For a condenser that complies with Subsection R315-265-1033(f)(2)(vi)(B), period if:

(A) Temperature of the exhaust vent stream from the condenser is more than 6 degrees Celsius above the design average exhaust vent stream temperature established as a requirement of Subsection R315-265-1035 (b)(4)(iii)(E); or

(B) Temperature of the coolant fluid exiting the condenser is more than 6 degrees Celsius above the design average coolant fluid temperature at the condenser outlet established as a requirement of Subsection R315-265-1035 (b)(4)(iii)(E).

(viii) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Subsection R315-265-1033(f)(2)(vii)(A), period if the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of Subsection R315-265-1035 (b)(4)(iii)(F).

(ix) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Subsection R315-265-1033(f)(2)(vii)(B), period if the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of Subsection R315-265-1035 (b)(4)(iii)(F).

(5) Explanation for each period recorded under Subsection R315-265-1035 (c)(4) of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

(6) For carbon adsorption systems operated subject to requirements specified in Subsections R315-265-1033(g) or R315-265-1033(h)(2), date when existing carbon in the control device is replaced with fresh carbon.

(7) For carbon adsorption systems operated subject to requirements specified in Subsection R315-265-1033(h)(1), a log that records:

(i) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

(ii) Date when existing carbon in the control device is replaced with fresh carbon.

(8) Date of each control device startup and shutdown.

(9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Subsection R315-265-1033(n) shall record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Subsection R315-265-1033(n), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.

(10) If a leak is detected as specified in Subsection R315-265-1033(k), the following information shall be recorded:

(i) The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number.

(ii) The date the leak was detected and the date of first attempt to repair the leak.

(iii) The date of successful repair of the leak.

(iv) Maximum instrument reading measured by Method 21 of 40 CFR part 60, appendix A after it is successfully repaired or determined to be nonrepairable.

(v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(A) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(B) If delay of repair was caused by depletion of stocked parts, there shall be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(d) Records of the monitoring, operating, and inspection information required by Subsections R315-265-1035(c)(3) through R315-265-1035(c)(10) shall be maintained by the owner or operator for at least 3 years following the date of each occurrence, measurement, maintenance, corrective action, or record.

(e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device shall be recorded in the facility operating record.

(f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section R315-265-1032 including supporting documentation as required by Subsection R315-265-1034(d)(2) if application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used, shall be recorded in a log that is kept in the facility operating record.

R315-265-1050. Air Emission Standards for Equipment Leaks -- Applicability.

(a) Sections R315-265-1050 through R315-265-1064 apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes, except as provided in Section R315-265-1.

(b) Except as provided in Subsection R315-265-1064(k), Sections R315-265-1050 through R315-265-1064 apply to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10% by weight that are managed in one of the following:

(1) a unit that is subject to the permitting requirements of Rule R315-270; or

(2) a unit, including a hazardous waste recycling unit, that is not exempt from permitting under Section R315-262-17, for example, a hazardous waste recycling unit that is not a 90-day tank or container, and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of Rule R315-270; or

(3) a unit that is exempt from permitting under Section R315-262-17, for example, a 90-day tank or container, and is not a recycling unit under Section R315-261-6.

(c) Each piece of equipment regulated under Sections R315-265-1050 through R315-265-1064 shall be marked so that it can be distinguished readily from other pieces of equipment.

(d) Equipment that is in vacuum service is excluded from the requirements of Sections R315-265-1052 through R315-265-1060 if it is identified as required in Subsection R315-265-1064(g)(5).

(e) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for less than 300 hours per calendar year is excluded from the requirements of Sections R315-265-1052 through R315-265-1060 if it is identified, as required in Subsection R315-265-1064(g)(6).

(f) Reserved.

(g) Purged coatings and solvents from surface coating operations subject to the national emission standards for hazardous air pollutants (NESHAP) for the surface coating of automobiles and light-duty trucks at 40 CFR part 63, subpart IIII, are not subject to the requirements of Sections R315-265-1050 through R315-265-1064.

(h) The requirements of Sections R315-265-1052 through R315-265-1064 apply to equipment associated with hazardous waste recycling units previously exempt under Subsection R315-261-6(c)(1). Other exemptions under Section R315-261-4 and Subsection R315-265-1(c) are not affected by these requirements.

R315-265-1051. Air Emission Standards for Equipment Leaks -- Definitions.

As used in Sections R315-265-1052 through R315-265-1064, the terms shall have the meaning given them in Section R315-264-1031, Title 19, Chapter 6, Part 1, Solid and Hazardous Waste Act, and Rules R315-260 through R315-266.

R315-265-1052. Air Emission Standards for Equipment Leaks -- Standards: Pumps in Light Liquid Service.

(a)(1) Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in Subsection R315-265-1063(b), except as provided in Subsections R315-265-1052(d), R315-265-1052(e), and R315-265-1052(f).

(2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

(b)(1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(2) If there are indications of liquids dripping from the pump seal, a leak is detected.

(c)(1) If a leak is detected, it shall be repaired as soon as practicable, but before 15 calendar days after it is detected, except as provided in Section R315-265-1059.

(2) A first attempt at repair, for example, tightening the packing gland, shall be made no later than five calendar days after each leak is detected.

(d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system and that meets the following requirements is exempt from the requirements of Subsection R315-265-1052(a):

(1) Each dual mechanical seal system shall be:

(i) operated with the barrier fluid at a pressure that is always greater than the pump stuffing box pressure; or

(ii) equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-265-1060; or

(iii) equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to the atmosphere.

(2) The barrier fluid system may not be a hazardous waste with organic concentrations 10% or greater by weight.

(3) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, the barrier fluid system or both.

(4) Each pump shall be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

(5)(i) Each sensor as described in Subsection R315-265-1052(d)(3) shall be checked daily or be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly.

(ii) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

(6)(i) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion determined in Subsection R315-265-1052(d)(5)(ii), a leak is detected.

(ii) If a leak is detected, it shall be repaired as soon as practicable, but before 15 calendar days after it is detected, except as provided in Section R315-265-1059.

(iii) A first attempt at repair, for example, relapping the seal, shall be made no later than five calendar days after each leak is detected.

(e) Any pump that is designated, as described in Subsection R315-265-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsections R315-265-1052(a), R315-265-1052(c), and R315-265-1052(d) if the pump meets the following requirements:

(1) Shall have no externally actuated shaft penetrating the pump housing.

(2) Shall operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Subsection R315-265-1063(c).

(3) Shall be tested for compliance with Subsection R315-265-1052(e)(2) initially upon designation, annually, and at other times as requested by the director.

(f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section R315-265-1060, it is exempt from the requirements of Subsections R315-265-1052(a) through R315-265-1052(e).

R315-265-1053. Air Emission Standards for Equipment Leaks -- Standards: Compressors.

(a) Each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in Subsections R315-265-1053(h) and R315-265-1053(i).

(b) Each compressor seal system as required in Subsection R315-265-1053(a) shall be:

(1) operated with the barrier fluid at a pressure that is always greater than the compressor stuffing box pressure; or

(2) equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section R315-265-1060; or

(3) equipped with a system that purges the barrier fluid into a hazardous waste stream with no detectable emissions to atmosphere.

(c) The barrier fluid may not be a hazardous waste with organic concentrations 10% or greater by weight.

(d) Each barrier fluid system as described in Subsections R315-265-1053(a) through R315-265-1053(c) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

(e)(1) Each sensor as required in Subsection R315-265-1053(d) shall be checked daily or shall be equipped with an audible alarm that shall be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor shall be checked daily.

(2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system or both.

(f) If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion determined under Subsection R315-625-1053(e)(2), a leak is detected.

(g)(1) If a leak is detected, it shall be repaired as soon as practicable, but before 15 calendar days after it is detected, except as provided in Section R315-265-1059.

(2) A first attempt at repair, for example, tightening the packing gland, shall be made no later than five calendar days after each leak is detected.

(h) A compressor is exempt from the requirements of Subsections R315-265-1053(a) and R315-265-1053(b) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section R315-265-1060, except as provided in Subsection R315-265-1053(i).

(i) Any compressor that is designated, as described in Subsection R315-265-1064(g)(2), for no detectable emission as

indicated by an instrument reading of less than 500 ppm above background is exempt from the requirements of Subsections R315-265-1053(a) through R315-265-1053(h) if the compressor:

(1) is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-265-1063(c).

(2) is tested for compliance with Subsection R315-265-1053(i)(1) initially upon designation, annually, and at other times as requested by the director.

R315-265-1054. Air Emission Standards for Equipment Leaks -- Standards: Pressure Relief Devices in Gas or Vapor Service.

(a) Except during pressure releases, each pressure relief device in gas or vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-265-1063(c).

(b)(1) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than five calendar days after each pressure release, except as provided in Section R315-265-1059.

(2) No later than five calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Subsection R315-265-1063(c).

(c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section R315-265-1060 is exempt from the requirements of Subsections R315-265-1054(a) and R315-265-1054(b).

R315-265-1055. Air Emission Standards for Equipment Leaks -- Standards: Sampling Connection Systems.

(a) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. This system shall collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.

(b) Each closed-purge, closed-loop, or closed-vent system as required in Subsection R315-265-1055(a) shall:

(1) return the purged process fluid directly to the process line; or

(2) collect and recycle the purged process fluid; or

(3) be designed and operated to capture and transport the purged process fluid to a waste management unit that complies with the applicable requirements of Sections R315-265-1085 through R315-265-1087 or a control device that complies with the requirements of Section R315-265-1060.

(c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of Subsections R315-265-1055(a) and R315-265-1055(b).

R315-265-1056. Air Emission Standards for Equipment Leaks -- Standards: Open-Ended Valves or Lines.

(a)(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

(2) The cap, blind flange, plug, or second valve shall always seal the open end except during operations requiring hazardous waste stream flow through the open-ended valve or line.

(b) Each open-ended valve or line equipped with a second valve shall be operated in a manner so that the valve on the hazardous waste stream end is closed before the second valve is closed.

(c) If a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with Subsection R315-265-1056(a) at any other time.

R315-265-1057. Air Emission Standards for Equipment Leaks -- Standards: Valves in Gas or Vapor Service or in Light Liquid Service.

(a) Each valve in gas or vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in Subsection R315-265-1063(b) and shall comply with Subsections R315-265-1057(b) through R315-265-1057(e), except as provided in Subsections R315-265-1057(f), R315-265-1057(g), and R315-265-1057(h), and Sections R315-265-1061 and R315-265-1062.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) Any valve for which a leak is not detected for two successive months may be monitored the first month of each succeeding quarter, beginning with the next quarter, until a leak is detected.

(2) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months.

(d)(1) If a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section R315-265-1059.

(2) A first attempt at repair shall be made no later than five calendar days after each leak is detected.

(e) First attempts at repair include the following best practices when practicable:

(1) Tightening of bonnet bolts.

(2) Replacement of bonnet bolts.

(3) Tightening of packing gland nuts.

(4) Injection of lubricant into lubricated packing.

(f) Any valve that is designated, as described in Subsection R315-265-1064(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Subsection R315-265-1057(a) if

the valve:

(1) has no external actuating mechanism in contact with the hazardous waste stream;

(2) is operated with emissions less than 500 ppm above background as determined by the method specified in Subsection R315-265-1063(c); and

(3) is tested for compliance with Subsection R315-265-1057(f)(2) initially upon designation, annually, and at other times as requested by the director.

(g) Any valve that is designated, as described in Subsection R315-265-1064(h)(1), as an unsafe to monitor valve is exempt from the requirements of Subsection R315-265-1057(a) if:

(1) the owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a result of complying with Subsection R315-265-1057(a); and

(2) the owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

(h) Any valve that is designated, as described in Subsection R315-265-1064(h)(2), as a difficult to monitor valve is exempt from the requirements of Subsection R315-265-1057(a) if:

(1) the owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than two meters above a support surface;

(2) the hazardous waste management unit where the valve is located was in operation before June 21, 1990; and

(3) the owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

R315-265-1058. Air Emission Standards for Equipment Leaks -- Standards: Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and other Connectors.

(a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within five days by the method specified in Subsection R315-265-1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

(b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(c)(1) If a leak is detected, it shall be repaired as soon as practicable, but before 15 calendar days after it is detected, except as provided in Section R315-265-1059.

(2) The first attempt at repair shall be made no later than five calendar days after each leak is detected.

(d) First attempts at repair include the best practices described under Subsection R315-265-1057(e).

(e) Any connector that is inaccessible or is ceramic or ceramic-lined, for example, porcelain, glass, or glass-lined, is exempt from the monitoring requirements of Subsection R315-265-1058(a) and from the recordkeeping requirements of Section R315-265-1064.

R315-265-1059. Air Emission Standards for Equipment Leaks -- Standards: Delay of Repair.

(a) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In such a case, repair of this equipment shall occur before the end of the next hazardous waste management unit shutdown.

(b) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with organic concentrations at least 10% by weight.

(c) Delay of repair for valves will be allowed if:

(1) The owner or operator determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

(2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section R315-265-1060.

(d) Delay of repair for pumps will be allowed if:

(1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.

(2) Repair is finished as soon as practicable, but before six months after the leak was detected.

(e) Delay of repair beyond a hazardous waste management unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous waste management unit shutdown will not be allowed unless the next hazardous waste management unit shutdown occurs sooner than six months after the first hazardous waste management unit shutdown.

R315-265-1060. Air Emission Standards for Equipment Leaks -- Standards: Closed-Vent Systems and Control Devices.

(a) Owners and operators of closed-vent systems and control devices subject to Sections R315-265-1050 through R315-265-1064 shall comply with Section R315-265-1033.

(b)(1) The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with Sections R315-265-1050 through R315-265-1064 on the effective date that the facility becomes subject to Sections R315-265-1050 through R315-265-1064 shall prepare an implementation schedule that includes dates that the closed-vent system and control device will be installed and in operation. The controls shall be installed as soon as possible, but the implementation schedule may

allow up to 30 months after the effective date that the facility becomes subject to Sections R315-265-1050 through R315-265-1064 for installation and startup.

(2) Any units that begin operation after December 21, 1990, and are subject to Sections R315-265-1050 through R315-265-1064 when operation begins, shall comply with the rules immediately, in other words, shall have control devices installed and operating on startup of the affected unit, the 30-month implementation schedule does not apply.

(3) The owner or operator of any facility in existence on the effective date of a statutory, EPA regulatory, or Utah Administrative Code amendment that makes the facility subject to Sections R315-265-1050 through R315-265-1064 shall comply with the requirements of Sections R315-265-1050 through R315-265-1064 as soon as practicable but no later than 30 months after the amendment's effective date. If control equipment required by Sections R315-265-1050 through R315-265-1064 cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator shall prepare an implementation schedule that includes the following information:

(i) specific calendar dates for award of contracts or issuance of purchase orders for the control equipment;

(ii) initiation of on-site installation of the control equipment;

(iii) completion of the control equipment installation; and

(iv) performance of any testing to demonstrate that the installed equipment meets the applicable standards of Sections R315-265-1050 through R315-265-1064.

(v) The owner or operator shall enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

(4) Owners and operators of facilities and units that become newly subject to the requirements of Sections R315-265-1050 through R315-265-1064 after December 8, 1997 due to an action other than those described in Subsection R315-265-1060(b)(3) shall comply with the applicable requirements immediately, in other words, shall have control devices installed and operating on the date the facility or unit becomes subject to Sections R315-265-1050 through R315-265-1064, the 30-month implementation schedule does not apply.

R315-265-1061. Air Emission Standards for Equipment Leaks -- Alternative Standards for Valves in Gas or Vapor Service or in Light Liquid Service: Percentage of Valves Allowed to Leak.

(a) An owner or operator subject to the requirements of Section R315-265-1057 may elect to have the valves within a hazardous waste management unit comply with an alternative standard that allows no greater than 2% of the valves to leak.

(b) The following requirements shall be met if an owner or operator decides to comply with the alternative standard of allowing 2% of valves to leak:

(1) A performance test as specified in Subsection R315-265-1061(c) shall be conducted initially upon designation, annually, and at other times requested by the director.

(2) If a valve leak is detected, it shall be repaired in accordance with Subsections R315-265-1057(d) and R315-265-1057(e).

(c) Performance tests shall be conducted in the following manner:

(1) Valves subject to the requirements in Section R315-265-1057 within the hazardous waste management unit shall be monitored within 1 week by the methods specified in Subsection R315-265-1063(b).

(2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

(3) The leak percentage shall be determined by dividing the number of valves subject to the requirements in Section R315-265-1057 that have detected leaks by the total number of valves subject to the requirements in Section R315-265-1057 within the hazardous waste management unit.

R315-265-1062. Air Emission Standards for Equipment Leaks -- Alternative Standards for Valves in Gas or Vapor Service or in Light Liquid Service: Skip Period Leak Detection and Repair.

(a) An owner or operator subject to the requirements of Section R315-265-1057 may elect for each valve within a hazardous waste management unit to comply with one of the alternative work practices specified in Subsections R315-265-1062(b)(2) and R315-265-1062(b)(3).

(b)(1) An owner or operator shall comply with the requirements for valves, as described in Section R315-265-1057, except as described in Subsections R315-265-1062(b)(2) and R315-265-1062(b)(3).

(2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2%, an owner or operator may begin to skip one of the quarterly leak detection periods, for example, monitor for leaks once every six months, for the valves subject to the requirements in Section R315-265-1057.

(3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2%, an owner or operator may begin to skip three of the quarterly leak detection periods, for example, monitor for leaks once each year, for the valves subject to the requirements in Section R315-265-1057.

(4) If the percentage of valves leaking is greater than 2%, the owner or operators shall monitor monthly in compliance with the requirements in Section R315-265-1057 but may again elect to use Section R315-265-1062 after meeting the requirements of Subsection R315-265-1057(c)(1).

R315-265-1063. Air Emission Standards for Equipment Leaks -- Test Methods and Procedures.

(a) Each owner or operator subject to Sections R315-265-1050 through R315-265-1064 shall comply with the test methods and procedures requirements provided in Section R315-265-1062.

(b) Leak detection monitoring, as required in Sections R315-265-1052 through R315-265-1062, shall comply with the

following requirements:

(1) Monitoring shall comply with Reference Method 21 in 40 CFR part 60.

(2) The detection instrument shall meet the performance criteria of Reference Method 21.

(3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

(4) Calibration gases shall be:

(i) zero air, less than 10 ppm of hydrocarbon in air; and

(ii) a mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

(5) The instrument probe shall be traversed around each potential leak interface as close to the interface as possible as described in Reference Method 21.

(c) When equipment is tested for compliance with no detectable emissions, as required in Subsections R315-265-1052(e), R315-265-1053(i), Section R315-265-1054, and Subsection R315-265-1057(f), the test shall comply with the following requirements:

(1) The requirements of Subsections R315-265-1062(b)(1) through R315-265-1062(b)(4) shall apply.

(2) The background level shall be determined, as set forth in Reference Method 21.

(3) The instrument probe shall be traversed around each potential leak interface as close to the interface as possible as described in Reference Method 21.

(4) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

(d) In accordance with the waste analysis plan required by Subsection R315-265-13(b), an owner or operator of a facility shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10% by weight using the following:

(1) methods described in ASTM Methods D 2267-88, E 169-87, E 168-88, E 260-85, incorporated by reference in Section R315-260-11;

(2) method 9060A, incorporated by reference in Section R315-260-11, of "Test Methods for Evaluating Solid Waste", EPA Publication SW-846 or analyzed for its individual organic constituents; or

(3) application of the knowledge of the nature of the hazardous waste stream or the process that produced the waste. Documentation of a waste determination by knowledge is required. Examples of documentation that shall be used to support a determination under Subsection R315-265-1063(d) include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the facility or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10%, or earlier speciation analysis results on the waste stream when it can also be documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

(e) If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10% by weight, the determination can be revised only after following the procedures in Subsection R315-265-1063(d)(1) or R315-265-1063(d)(2).

(f) If an owner or operator and the director do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10% by weight, the procedures in Subsection R315-265-1063(d)(1) or R315-265-1063(d)(2) can be used to resolve the dispute.

(g) Samples used in determining the percent organic content shall be representative of the highest total organic content hazardous waste that is expected to be contained in or contact the equipment.

(h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents may be procured from standard reference texts or may be determined by ASTM D-2879-86, incorporated by reference in Section R315-260-11.

(i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction shall comply with the procedures of Subsections R315-265-1034(c)(1) through R315-265-1034(c)(4).

R315-265-1064. Air Emission Standards for Equipment Leaks -- Recordkeeping Requirements.

(a)(1) Each owner or operator subject to Sections R315-265-1050 through R315-265-1064 shall comply with the recordkeeping requirements of Section R315-265-1064.

(2) An owner or operator of more than one hazardous waste management unit subject to Sections R315-265-1050 through R315-265-1064 may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

(b) Owners and operators shall record the following information in the facility operating record:

(1) For each piece of equipment that Sections R315-265-1050 through R315-265-1064 applies:

(i) Equipment identification number and hazardous waste management unit identification.

(ii) Approximate locations within the facility, for example, identify the hazardous waste management unit on a facility plot plan.

(iii) Type of equipment, for example, a pump or pipeline valve.

(iv) Percent-by-weight total organics in the hazardous waste stream at the equipment.

(v) Hazardous waste state at the equipment, for example, gas or vapor or liquid.

(vi) Method of compliance with the standard, for example, "monthly leak detection and repair" or "equipped with dual mechanical seals".

(2) For facilities that comply with Subsection R315-265-1033(a)(2), an implementation schedule as specified in Subsection R315-265-1033(a)(2).

(3) When an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Subsection R315-265-1035(b)(3).

(4) Documentation of compliance with Section R315-265-1060, including the detailed design documentation or performance test results specified in Subsection R315-265-1035(b)(4).

(c) When each leak is detected as specified in Sections R315-265-1052, R315-265-1053, R315-265-1057, and R315-265-1058, the following requirements apply:

(1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Subsection R315-265-1058(a), and the date the leak was detected, shall be attached to the leaking equipment.

(2) The identification on equipment, except on a valve, may be removed after it has been repaired.

(3) The identification on a valve may be removed after it has been monitored for two successive months as specified in Subsection R315-265-1057(c) and no leak has been detected during those two months.

(d) When each leak is detected as specified in Sections R315-265-1052, R315-265-1053, R315-265-1057, and R315-265-1058, the following information shall be recorded in an inspection log and shall be kept in the facility operating record:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date evidence of a potential leak was found in accordance with Subsection R315-265-1058(a).

(3) The date the leak was detected and the dates of each attempt to repair the leak.

(4) Repair methods applied in each attempt to repair the leak.

(5) "Above 10,000" if the maximum instrument reading measured by the methods specified in Subsection R315-265-1063(b) after each repair attempt is equal to or greater than 10,000 ppm.

(6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(7) Documentation supporting the delay of repair of a valve in compliance with Subsection R315-265-1059(c).

(8) The signature of the owner or operator, or designate, whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.

(9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

(10) The date of successful repair of the leak.

(e) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with Section R315-265-1060 shall be recorded and kept up-to-date in the facility operating record as specified in Subsection R315-265-1035(c). Design documentation is specified in Subsections R315-265.1035(c)(1) and R315-265-1035(c)(2) and monitoring, operating, and inspection information in Subsections R315-265.1035(c)(3) through R315-265-1035(c)(8).

(f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device shall be recorded in the facility operating record.

(g) The following information pertaining to the equipment subject to the requirements in Sections R315-265-1052 through R315-265-1060 shall be recorded in a log that is kept in the facility operating record:

(1) A list of identification numbers for equipment, except welded fittings, subject to the requirements of Sections R315-265-1050 through R315-265-1064.

(2)(i) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under Subsections R315-265-1052(e), R315-265-1053(i), and R315-265-1057(f).

(ii) The designation of this equipment as subject to the requirements of Subsection R315-265-1052(e), R315-265-1053(i), or R315-265-1057(f) shall be signed by the owner or operator.

(3) A list of equipment identification numbers for pressure relief devices required to comply with Subsection R315-265-1054(a).

(4)(i) The dates of each compliance test required in Subsections R315-265-1052(e), R315-265-1053(i), Section R315-265-1054, and Subsection R315-265-1057(f).

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

(5) A list of identification numbers for equipment in vacuum service.

(6) Identification, either by list or location, area or group, of equipment that contains or contacts hazardous waste with an organic concentration of at least 10% by weight for less than 300 hours per calendar year.

(h) The following information pertaining to each valve subject to the requirements of Subsections R315-265-1057(g) and R315-265-1057(h) shall be recorded in a log that is kept in the facility operating record:

(1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

(2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

(i) The following information shall be recorded in the facility operating record for valves complying with Section R315-265-1062:

(1) A schedule of monitoring.

(2) The percent of valves found leaking during each monitoring period.

(j) The following information shall be recorded in a log that is kept in the facility operating record:

(1) Criteria required in Subsections R315-265-1052(d)(5)(ii) and R315-265-1053(e)(2) and an explanation of the criteria.

(2) Any changes to these criteria and the reasons for the changes.

(k) The following information shall be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in Section R315-265-1050:

(1) An analysis determining the design capacity of the hazardous waste management unit.

(2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Sections R315-265-1052 through R315-265-1060 and an analysis determining whether these hazardous wastes are heavy liquids.

(3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections R315-265-1052 through R315-265-1060. The record shall include supporting documentation as required by Subsection R315-265-1063(d)(3) when application of the knowledge of the nature of the hazardous waste stream or the process that produced the waste is used. If the owner or operator takes any action, for example, changing the process that produced the waste, that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections R315-265-1052 through R315-265-1060, then a new determination is required.

(l) Records of the equipment leak information required by Subsection R315-265-1064(d) and the operating information required by Subsection R315-265-1064(e) need be kept only three years.

(m) The owner or operator of any facility with equipment that is subject to Sections R315-265-1050 through R315-265-1064 and to leak detection, monitoring, and repair requirements under regulations at 40 CFR part 60, part 61, or part 63 may elect to determine compliance with Sections R315-265-1050 through R315-265-1064 either by documentation pursuant to Section R315-265-1064, or by documentation of compliance with the regulations at 40 CFR part 60, part 61, or part 63 pursuant to the relevant requirements of the regulations at 40 CFR part 60, part 61, or part 63. The documentation of compliance under regulation at 40 CFR part 60, part 61, or part 63 shall be kept with or made readily available with the facility operating record.

R315-265-1080. Air Emission Standards for Tanks, Surface Impoundments, and Containers--Applicability.

(a) The requirements of Sections R315-265-1080 through R315-265-1090 apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface impoundments, or containers subject to either Sections R315-265-170 through R315-265-178, Sections R315-265-190 through R315-265-202, or Sections R315-265-220 through R315-265-231 except as Section R315-265-1 and Subsection R315-265-1080(b) provide otherwise.

(b) The requirements of Sections R315-265-1080 through R315-265-1090 do not apply to the following waste management units at the facility:

(1) A waste management unit that holds hazardous waste placed in the unit before December 6, 1996, and in which no hazardous waste is added to the unit on or after December 6, 1996.

(2) A container that has a design capacity less than or equal to 0.1 m3.

(3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

(4) A surface impoundment in which an owner or operator has stopped adding hazardous waste, except to implement an approved closure plan, and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

(5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is placed in the unit as a result of implementing remedial activities required under the corrective action authorities of RCRA sections 3004(u), 3004(v), or 3008(h); CERCLA authorities; or similar Federal or Utah authorities.

(6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act and the Nuclear Waste Policy Act.

(7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable regulation codified under the Utah Air Conservation Act. For the purpose of complying with Subsection R315-265-1080(b), a tank for which the air emission control includes an enclosure, as opposed to a cover, shall be in compliance with the enclosure and control device requirements of Subsection R315-265-1085(i), except as provided in Subsection R315-265-1083(c)(5).

(8) A tank that has a process vent as defined in Section R315-264-1031.

(c) For the owner and operator of a facility subject to Sections R315-265-1080 through R315-265-1090 who has received a final permit under RCRA section 3005 prior to December 6, 1996, the following requirements apply:

(1) The requirements of Sections R315-264-1080 through R315-264-1090 shall be incorporated into the permit if the permit is reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d).

(2) Until the date when the permit is reissued in accordance with the requirements of Section R315-124-15 or reviewed in accordance with the requirements of Subsection R315-270-50(d), the owner and operator is subject to the requirements of Sections R315-265-1080 through R315-265-1090.

(d) The requirements of Sections R315-265-1080 through R315-265-1090, except for the recordkeeping requirements specified in Subsection R315-265-1090(i), are administratively stayed for a tank or a container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations if the owner or operator of the unit meets all of the following conditions:

(1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional

family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purpose of meeting the conditions of Subsection R315-265-1080(d), "organic peroxide" means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

(2) The owner or operator prepares documentation, in accordance with the requirements of Subsection R315-265-1090(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections R315-265-1085 through R315-265-1088 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of Subsection R315-265-1080(d)(1).

(3) The owner or operator notifies the Director in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of Subsection R315-265-1080(d)(1) are managed at the facility in tanks or containers meeting the conditions of Subsection R315-265-1080(d)(2). The notification shall state the name and address of the facility, and be signed and dated by an authorized representative of the facility owner or operator.

R315-265-1081. Air Emission Standards for Tanks, Surface Impoundments, and Containers --Definitions.

As used in Sections R315-265-1080 through R315-265-1090, all terms not defined herein shall have the meaning given to them in RCRA and Rules R315-260 through R315-266.

"Average volatile organic concentration" or "average VO concentration" means the mass-weighted average volatile organic concentration of a hazardous waste as determined in accordance with the requirements of Section R315-265-1084.

"Closure device" means a cap, hatch, lid, plug, seal, valve, or other type of fitting that blocks an opening in a cover such that if the device is secured in the closed position it prevents or reduces air pollutant emissions to the atmosphere. Closure devices include devices that are detachable from the cover, for example, a sampling port cap, manually operated, for example a hinged access lid or hatch, or automatically operated, for example, a spring-loaded pressure relief valve.

"Continuous seal" means a seal that forms a continuous closure that completely covers the space between the edge of the floating roof and the wall of a tank. A continuous seal may be a vapor-mounted seal, liquid-mounted seal, or metallic shoe seal. A continuous seal may be constructed of fastened segments so as to form a continuous seal.

"Cover" means a device that provides a continuous barrier over the hazardous waste managed in a unit to prevent or reduce air pollutant emissions to the atmosphere. A cover may have openings, such as access hatches, sampling ports, gauge wells, that are necessary for operation, inspection, maintenance, and repair of the unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the unit or a cover may be formed by structural features permanently integrated into the design of the unit.

"Enclosure" means a structure that surrounds a tank or container, captures organic vapors emitted from the tank or container, and vents the captured vapors through a closed-vent system to a control device.

"External floating roof" means a pontoon-type or double-deck type cover that rests on the surface of the material managed in a tank with no fixed roof.

"Fixed roof" means a cover that is mounted on a unit in a stationary position and does not move with fluctuations in the level of the material managed in the unit.

"Floating membrane cover" means a cover consisting of a synthetic flexible membrane material that rests upon and is supported by the hazardous waste being managed in a surface impoundment.

"Floating roof" means a cover consisting of a double deck, pontoon single deck, or internal floating cover which rests upon and is supported by the material being contained, and is equipped with a continuous seal.

"Hard-piping" means pipe or tubing that is manufactured and properly installed in accordance with relevant standards and good engineering practices.

"In light material service" means the container is used to manage a material for which both of the following conditions apply: The vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20 degrees C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20 degrees C is equal to or greater than 20 percent by weight.

"Internal floating roof" means a cover that rests or floats on the material surface, but not necessarily in complete contact with it, inside a tank that has a fixed roof.

"Liquid-mounted seal" means a foam or liquid-filled primary seal mounted in contact with the hazardous waste between the tank wall and the floating roof continuously around the circumference of the tank.

"Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

"Maximum organic vapor pressure" means the sum of the individual organic constituent partial pressures exerted by the material contained in a tank, at the maximum vapor pressure-causing conditions, such as, temperature, agitation, pH effects of combining wastes, etc., reasonably expected to occur in the tank. For the purpose of Sections R315-265-1080 through R315-265-1090, maximum organic vapor pressure is determined using the procedures specified in Subsection R315-265-1084(c).

"Metallic shoe seal" means a continuous seal that is constructed of metal sheets which are held vertically against the wall of the tank by springs, weighted levers, or other mechanisms and is connected to the floating roof by braces or other means. A flexible coated fabric, envelope, spans the annular space between the metal sheet and the floating roof.

"No detectable organic emissions" means no escape of organics to the atmosphere as determined using the procedure specified in

Subsection R315-265-1084(d).

"Point of waste origination" means as follows:

(1) If the facility owner or operator is the generator of the hazardous waste, the point of waste origination means the point where a solid waste produced by a system, process, or waste management unit is determined to be a hazardous waste as defined in Rule R315-261. In this case, this term is being used in a manner similar to the use of the term "point of generation" in air standards established for waste management operations under authority of the Utah Air Conservation Act.

(2) If the facility owner and operator are not the generator of the hazardous waste, point of waste origination means the point where the owner or operator accepts delivery or takes possession of the hazardous waste.

"Point of waste treatment" means the point where a hazardous waste to be treated in accordance with Subsection R315-265-1083(c)(2) exits the treatment process. Any waste determination shall be made before the waste is conveyed, handled, or otherwise managed in a manner that allows the waste to volatilize to the atmosphere.

"Safety device" means a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions exclusively to prevent physical damage or permanent deformation to a unit or its air emission control equipment by venting gases or vapors directly to the atmosphere during unsafe conditions resulting from an unplanned, accidental, or emergency event. For the purpose of Sections R315-265-1080 through R315-265-1090, a safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of the unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only if the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the air emission control equipment as determined by the owner or operator based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.

"Single-seal system" means a floating roof having one continuous seal. This seal may be vapor-mounted, liquid-mounted, or a metallic shoe seal.

"Vapor-mounted seal" means a continuous seal that is mounted such that there is a vapor space between the hazardous waste in the unit and the bottom of the seal.

"Volatile organic concentration" or "VO concentration" means the fraction by weight of the volatile organic compounds contained in a hazardous waste expressed in terms of parts per million (ppmw) as determined by direct measurement or by knowledge of the waste in accordance with the requirements of Section R315-265-1084. For the purpose of determining the VO concentration of a hazardous waste, organic compounds with a Henry's law constant value of at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in the liquid-phase, (0.1 Y/X), which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m3, at 25 degrees Celsius shall be included. Appendix VI of 40 CFR 265, which is adopted and incorporated by reference, presents a list of compounds known to have a Henry's law constant value less than the cutoff level.

"Waste determination" means performing all applicable procedures in accordance with the requirements of Section R315-265-1084 to determine whether a hazardous waste meets standards specified in Sections R315-265-1080 through R315-265-1090. Examples of a waste determination include performing the procedures in accordance with the requirements of Section R315-265-1084 to determine the average VO concentration of a hazardous waste at the point of waste origination; the average VO concentration of a hazardous waste at the point of waste treatment and comparing the results to the exit concentration limit specified for the process used to treat the hazardous waste; the organic reduction efficiency and the organic biodegradation efficiency for a biological process used to treat a hazardous waste and comparing the results to the applicable standards; or the maximum volatile organic vapor pressure for a hazardous waste in a tank and comparing the results to the applicable standards.

"Waste stabilization" process means any physical or chemical process used to either reduce the mobility of hazardous constituents in a hazardous waste or eliminate free liquids as determined by Test Method 9095B, Paint Filter Liquids Test, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in Section R315-260-11. A waste stabilization process includes mixing the hazardous waste with binders or other materials, and curing the resulting hazardous waste and binder mixture. Other synonymous terms used to refer to this process are "waste fixation" or "waste solidification." This does not include the adding of absorbent materials to the surface of a waste, without mixing, agitation, or subsequent curing, to absorb free liquid.

R315-265-1082. Air Emission Standards for Tanks, Surface Impoundments, and Containers ---Schedule for Implementation of Air Emission Standards.

(a) Owners or operators of facilities existing on December 6, 1996 and subject to Sections R315-265-170 through R315-265-178, Sections R315-265-190 through R315-265-202, and Sections R315-265-220 through R315-265-231 shall meet the following requirements:

(1) Install and begin operation of all control equipment or waste management units required to comply with Sections R315-265-1080 through R315-265-1090 and complete modifications of production or treatment processes to satisfy exemption criteria in accordance with Subsection R315-265-1083(c) by December 6, 1996, except as provided for in Subsection R315-265-1082(a)(2).

(2) If control equipment or waste management units required to comply with Sections R315-265-1080 through R315-265-1090 cannot be installed and if operation or modifications of production or treatment processes to satisfy exemption criteria in accordance with Subsection R315-265-1083(c) cannot be completed by December 6, 1996, the owner or operator shall:

(i) Install and begin operation of the control equipment and waste management units, and complete modifications of production or treatment processes as soon as possible but no later than December 8, 1997.

(ii) Prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for control equipment, waste management units, and production or treatment process modifications; initiation of on-site installation of control equipment or waste management units, and modifications of production or treatment processes; completion

of control equipment or waste management unit installation, and production or treatment process modifications; and performance of testing to demonstrate that the installed equipment or waste management units, and modified production or treatment processes meet the applicable standards of Sections R315-265-1080 through R315-265-1090.

(iii) For facilities subject to the recordkeeping requirements of Section R315-265-73, the owner or operator shall enter the implementation schedule specified in Subsection R315-265-1082(a)(2)(ii) in the operating record no later than December 6, 1996.

(iv) For facilities not subject to Section R315-265-73, the owner or operator shall enter the implementation schedule specified in Subsection R315-265-1082(a)(2)(ii) in a permanent, readily available file located at the facility no later than December 6, 1996.

(b) Owners or operators of facilities and units in existence on the effective date of a statutory, EPA, or Utah regulatory amendment that renders the facility subject to Sections R315-265-170 through R315-265-178, Sections R315-265-190 through R315-265-202, or Sections R315-265-220 through R315-265-231 shall meet the following requirements:

(1) Install and begin operation of control equipment or waste management units required to comply with Sections R315-265-1080 through R315-265-1090, and complete modifications of production or treatment processes to satisfy exemption criteria of Subsection R315-265-1083(c) by the effective date of the amendment, except as provided for in Subsection R315-265-1082(b)(2).

(2) If control equipment or waste management units required to comply with Sections R315-265-1080 through R315-265-1090 cannot be installed and begin operation, or if modifications of production or treatment processes to satisfy exemption criteria of Subsection R315-265-1083(c) cannot be completed by the effective date of the amendment, the owner or operator shall:

(i) Install and begin operation of the control equipment or waste management unit, and complete modification of production or treatment processes as soon as possible but no later than 30 months after the effective date of the amendment.

(ii) For facilities subject to the recordkeeping requirements of Section R315-265-73, enter and maintain the implementation schedule specified in Subsection R315-265-1082(a)(2)(ii) in the operating record no later than the effective date of the amendment, or

(iii) For facilities not subject to Section R315-265-73, the owner or operator shall enter and maintain the implementation schedule specified in Subsection R315-265-1082(a)(2)(ii) in a permanent, readily available file located at the facility site no later than the effective date of the amendment.

(c) Owners and operators of facilities and units that become newly subject to the requirements of Sections R315-265-1080 through R315-265-1090 after December 8, 1997 due to an action other than those described in Subsection R315-265-1082(b) shall comply with all applicable requirements immediately, for example, shall have control devices installed and operating on the date the facility or unit becomes subject to Sections R315-265-1080 through R315-265-1090; the 30-month implementation schedule does not apply.

(d) The Director may elect to extend the implementation date for control equipment at a facility, on a case by case basis, to a date later than December 8, 1997, if special circumstances that are beyond the facility owner's or operator's control delay installation or operation of control equipment, and the owner or operator has made all reasonable and prudent attempts to comply with the requirements of Sections R315-265-1080 through R315-265-1090.

R315-265-1083. Air Emission Standards for Tanks, Surface Impoundments, and Containers --- Standards: General.

(a) Section R315-265-1083 applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to Sections R315-265-1080 through R315-265-1090.

(b) The owner or operator shall control air pollutant emissions from each hazardous waste management unit in accordance with standards specified in Sections R315-265-1085 through R315-265-1088, as applicable to the hazardous waste management unit, except as provided for in R315-265-1083(c).

(c) A tank, surface impoundment, or container is exempt from standards specified in Sections R315-265-1085 through R315-265-1088, as applicable, provided that the waste management unit is one of the following:

(1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration shall be determined using the procedures specified in Subsection R315-265-1084(a). The owner or operator shall review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.

(2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:

(i) A process that removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit (Ct) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process shall be determined using the procedures specified in Subsection R315-265-1084(b).

(ii) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in Subsection R315-265-1084(b).

(iii) A process that removes or destroys the organics contained in the hazardous waste to a level such that the actual organic mass removal rate (MR) for the process is equal to or greater than the required organic mass removal rate (RMR) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process shall be determined using the procedures specified in Subsection R315-265-1084(b).

(iv) A biological process that destroys or degrades the organics contained in the hazardous waste, such that either of the following conditions is met:

(A) The organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the organic biodegradation

efficiency (Rbio) for the process is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process shall be determined using the procedures specified in Subsection R315-265-1084(b).

(B) The total actual organic mass biodegradation rate (MRbio) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process shall be determined using the procedures specified in Subsection R315-265-1084(b).

(v) A process that removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:

(A) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is managed continuously in waste management units which use air emission controls in accordance with the standards specified in Sections R315-265-1085 through R315-265.1088, as applicable to the waste management unit.

(B) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere. The Director considers a drain system that meets the requirements of Subsection R307-214-2(29), which incorporates 40 CFR part 63, subpart RR---National Emission Standards for Individual Drain Systems to be a closed system.

(C) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination determined for each of the individual waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual waste stream at the point of waste origination shall be determined using the procedures specified in Subsection R315-265-1084(a). The average VO concentration of the hazardous waste at the point of waste treatment shall be determined using the procedures specified in Subsection R315-265-1084(b).

(vi) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination shall be determined using the procedures specified in Subsections R315-265-1084(b) and R315-265-1084(a), respectively.

(vii) A hazardous waste incinerator for which the owner or operator has either:

(A) Been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-264-340 through R315-264-351; or

(B) Has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR 265.340 through 265.352, which is adopted and incorporated by reference.

(viii) A boiler or industrial furnace for which the owner or operator has either:

(A) Been issued a final permit under Rule R315-270 which implements the requirements of Sections R315-266-100 through R315-266-112, or

(B) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Sections R315-266-100 through R315-266-112.

(ix) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of Subsections R315-265-1083(c)(2)(i) through R315-265-1083(c)(2)(vi), the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

(A) If Method 25D in 40 CFR part 60, appendix A is used for the analysis, one-half the blank value determined in the method at section 4.4 of Method 25D in 40 CFR part 60, appendix A, or a value of 25 ppmw, whichever is less.

(B) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m3, at 25 degrees Celsius.

(3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of Subsection R315-265-1083(c)(2)(iv).

(4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit either:

(i) Meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Rule R315-268--Land Disposal Restrictions under Table "Treatment Standards for Hazardous Waste"; or

(ii) The organic hazardous constituents in the waste have been treated by the treatment technology established by the Board for the waste in Subsection R315-268-42(a), or have been removed or destroyed by an equivalent method of treatment approved in accordance with Subsection R315-268-42(b).

(5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:

(i) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under Section R315-214-1, which incorporates 40 CFR part 61, subpart FF--National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year;

(ii) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and

(iii) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, Appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.

(d) The Director may at any time perform or request that the owner or operator perform a waste determination for a hazardous

waste managed in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of Section R315-265-1083 as follows:

(1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination shall be performed using direct measurement in accordance with the applicable requirements of Subsection R315-265-1084(a). The waste determination for a hazardous waste at the point of waste treatment shall be performed in accordance with the applicable requirements of Subsection R315-265-1084(b).

(2) In performing a waste determination pursuant to Subsection R315-265-1083(d)(1), the sample preparation and analysis shall be conducted as follows:

(i) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in Subsection R315-265-1083(d)(2)(ii).

(ii) If the Director determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Director may choose an appropriate method.

(3) If the owner or operator is requested to perform the waste determination, the Director may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis.

(4) If the results of the waste determination performed or requested by the Director do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of Subsection R315-265-1083(d)(1) shall be used to establish compliance with the requirements of Sections R315-265-1080 through R315-265-1090.

(5) If the owner or operator has used an averaging period greater than 1 hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Director may elect to establish compliance with Sections R315-265-1080 through R315-265-1090 by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a 1-hour period as follows:

(i) The average VO concentration of the hazardous waste at the point of waste origination shall be determined by direct measurement in accordance with the requirements of Subsection R315-265-1084(a).

(ii) Results of the waste determination performed or requested by the Director showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw shall constitute noncompliance with Sections R315-265-1080 through R315-265-1090 except in a case as provided for in Subsection R315-265-1083(d)(5)(iii).

(iii) If the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given 1-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste, for example, test results, measurements, calculations, and other documentation, and recorded in the facility records in accordance with the requirements of Subsection R315-265-1084(a) and Section R315-265-1090 shall be considered by the Director together with the results of the waste determination performed or requested by the Director in establishing compliance with Sections R315-265-1080 through R315-265-1090.

R315-265-1084. Air Emission Standards for Tanks, Surface Impoundments, and Containers -- Waste Determination Procedures.

(a) Waste determination procedure to determine average volatile organic (VO) concentration of a hazardous waste at the point of waste origination.

(1) An owner or operator shall determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Subsection R315-265-1083(c)(1) from using air emission controls in accordance with standards specified in Sections R315-265-1085 through R315-265-1088, as applicable to the waste management unit.

(i) An initial determination of the average VO concentration of the waste stream shall be made before the first time any portion of the material in the hazardous waste stream is placed in a waste management unit exempted under the provisions of Subsection R315-265-1083(c)(1) from using air emission controls, and thereafter an initial determination of the average VO concentration of the waste stream shall be made for each averaging period that a hazardous waste is managed in the unit; and

(ii) Perform a new waste determination if changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the VO concentration limit specified in Subsection R315-265-1083(c)(1).

(2) For a waste determination that is required by Subsection R315-265-1084(a)(1), the average VO concentration of a hazardous waste at the point of waste origination shall be determined using either direct measurement as specified in Subsection R315-265-1084(a)(3) or by knowledge as specified in Subsection R315-265-1084(a)(4).

(3) Direct measurement to determine average VO concentration of a hazardous waste at the point of waste origination.

(i) Identification. The owner or operator shall identify and record the point of waste origination for the hazardous waste.

(ii) Sampling. Samples of the hazardous waste stream shall be collected at the point of waste origination in a manner such that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(A) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but shall not exceed 1 year.

(B) A sufficient number of samples, but no less than four samples, shall be collected and analyzed for a hazardous waste determination. All of the samples for a given waste determination shall be collected within a one-hour period. The average of the four or

more sample results constitutes a waste determination for the waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the source or process generating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.

(C) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous waste stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the facility operating records. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in 40 CFR part 60, appendix A.

(D) Sufficient information, as specified in the "site sampling plan" required under Subsection R315-265-1084(a)(3)(ii)(C), shall be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous waste represented by the samples.

(iii) Analysis. Each collected sample shall be prepared and analyzed in accordance with Method 25D in 40 CFR part 60, appendix A for the total concentration of volatile organic constituents, or using one or more methods if the individual organic compound concentrations are identified and summed and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m3, at 25 degrees Celsius. At the owner or operator's discretion, the owner or operator may adjust test data obtained by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value of less than 0.1 Y/X at 25 degrees Celsius. To adjust these data, the measured concentration of each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor (fm25D). If the owner or operator elects to adjust test data, the adjustment shall be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25 degrees Celsius contained in the waste. Constituent-specific adjustment factors (fm25D) can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be used if they meet the requirements in Subsections R315-265-1084(a)(3)(iii)(A) or (B) and provided the requirement to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X, which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m3, at 25 degrees Celsius, is met.

(A) Any EPA standard method that has been validated in accordance with "Alternative Validation Procedure for EPA Waste and Wastewater Methods," 40 CFR part 63, appendix D.

(B) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR part 63, appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

(iv) Calculations.

(A) The average VO concentration on a mass-weighted basis shall be calculated by using the results for all waste determinations conducted in accordance with Subsections R315-265-1084(a)(3) (ii) and (iii) and the equation found in 40 CFR 265.1084(a)(3)(iv)(A), which is adopted and incorporated by reference.

(B) For the purpose of determining Ci, for individual waste samples analyzed in accordance with Subsection R315-265-1084(a)(3)(iii), the owner or operator shall account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:

(1) If Method 25D in 40 CFR part 60, appendix A is used for the analysis, one-half the blank value determined in the method at section 4.4 of Method 25D in 40 CFR part 60, appendix A.

(2) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m3, at 25 degrees Celsius.

(v) Provided that the test method is appropriate for the waste as required under Subsection R315-265-1084(a)(3)(iii), the Director will determine compliance based on the test method used by the owner or operator as recorded pursuant to Subsection R315-265-1090(f)(1).

(4) Use of owner or operator knowledge to determine average VO concentration of a hazardous waste at the point of waste origination.

(i) Documentation shall be prepared that presents the information used as the basis for the owner's or operator's knowledge of the hazardous waste stream's average VO concentration. Examples of information that may be used as the basis for knowledge include: Material balances for the source or process generating the hazardous waste stream; constituent-specific chemical test data for the hazardous waste stream from previous testing that are still applicable to the current waste stream; previous test data for other locations managing the same type of waste stream; or other knowledge based on information included in manifests, shipping papers, or waste certification notices.

(ii) If test data are used as the basis for knowledge, then the owner or operator shall document the test method, sampling protocol, and the means by which sampling variability and analytical variability are accounted for in the determination of the average VO concentration. For example, an owner or operator may use organic concentration test data for the hazardous waste stream that are validated in accordance with Method 301 in 40 CFR part 63, appendix A as the basis for knowledge of the waste.

(iii) An owner or operator using chemical constituent-specific concentration test data as the basis for knowledge of the hazardous waste may adjust the test data to the corresponding average VO concentration value which would have been obtained had the waste

samples been analyzed using Method 25D in 40 CFR part 60, appendix A. To adjust these data, the measured concentration for each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor (fm25D).

(iv) In the event that the Director and the owner or operator disagree on a determination of the average VO concentration for a hazardous waste stream using knowledge, then the results from a determination of average VO concentration using direct measurement as specified in Subsection R316-265-1084(a)(3) shall be used to establish compliance with the applicable requirements of Sections R315-265-1080 through R315-265-1090. The Director may perform or request that the owner or operator perform this determination using direct measurement. The owner or operator may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of Subsection R315-265-1084(a)(3)(iii).

(b) Waste determination procedures for treated hazardous waste.

(1) An owner or operator shall perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of Subsections R315-265-1083 (c)(2)(i) through (c)(2)(vi) from using air emission controls in accordance with standards specified in Sections R315-265-1085 through R315-265-1088, as applicable to the waste management unit.

(i) An initial determination of the average VO concentration of the waste stream shall be made before the first time any portion of the material in the treated waste stream is placed in a waste management unit exempted under the provisions of Subsections R315-265-1083(c)(2), R315-265-1083(c)(3), or R315-265-1083(c)(4) from using air emission controls, and thereafter update the information used for the waste determination at least once every 12 months following the date of the initial waste determination; and

(ii) Perform a new waste determination if changes to the process generating or treating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level such that the applicable treatment conditions specified in Subsections R315-265-1083(c)(2), R315-265-1083(c)(3), or R315-265-1083(c)(4) are not achieved.

(2) The owner or operator shall designate and record the specific provision in Subsection R315-265-1083(c)(2) under which the waste determination is being performed. The waste determination for the treated hazardous waste shall be performed using the applicable procedures specified in Subsections R315-265-1084(b)(3) through (b)(9).

(3) Procedure to determine the average VO concentration of a hazardous waste at the point of waste treatment.

(i) Identification. The owner or operator shall identify and record the point of waste treatment for the hazardous waste.

(ii) Sampling. Samples of the hazardous waste stream shall be collected at the point of waste treatment in a manner such that volatilization of organics contained in the waste and in the subsequent sample is minimized and an adequately representative sample is collected and maintained for analysis by the selected method.

(A) The averaging period to be used for determining the average VO concentration for the hazardous waste stream on a mass-weighted average basis shall be designated and recorded. The averaging period can represent any time interval that the owner or operator determines is appropriate for the hazardous waste stream but shall not exceed 1 year.

(B) A sufficient number of samples, but no less than four samples, shall be collected and analyzed for a hazardous waste determination. All of the samples for a given waste determination shall be collected within a one-hour period. The average of the four or more sample results constitutes a waste determination for the waste stream. One or more waste determinations may be required to represent the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the process generating or treating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.

(C) All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous waste stream are collected such that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the facility operating records. An example of acceptable sample collection and handling procedures for a total volatile organic constituent concentration may be found in Method 25D in 40 CFR part 60, appendix A.

(D) Sufficient information, as specified in the "site sampling plan" required under Subsection R316-265-1084(b)(3)(ii)(C), shall be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the process treating the hazardous waste represented by the samples.

(iii) Analysis. Each collected sample shall be prepared and analyzed in accordance with Method 25D in 40 CFR part 60, appendix A for the total concentration of volatile organic constituents, or using one or more methods if the individual organic compound concentrations are identified and summed and the summed waste concentration accounts for and reflects all organic compounds in the waste with Henry's law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X), which can also be expressed as $1.8 \times 10{-}6$ atmospheres/gram-mole/m3, at 25 degrees Celsius. If the owner or operator is making a waste determination for a treated hazardous waste that is to be compared to an average VO concentration at the point of waste origination or the point of waste entry to the treatment system to determine if the conditions of Subsections R315-264-1082(c)(2)(i) through (c)(2)(vi), or Subsections R315-265-1083(c)(2)(i) through (c)(2)(vi) are met, then the waste samples shall be prepared and analyzed using the same method or methods as were used in making the initial waste determinations at the point of waste origination or at the point of entry to the treatment system. At the owner or operator's discretion, the owner or operator may adjust test data obtained by any appropriate method to discount any contribution to the total volatile organic concentration that is a result of including a compound with a Henry's law constant value less than 0.1 Y/X at 25 degrees Celsius. To adjust these data, the measured concentration of each individual chemical constituent in the waste is multiplied by the appropriate constituent-specific adjustment factor (fm25D). If the owner or operator elects to adjust test data, the adjustment shall be made to all individual chemical constituents with a Henry's law constant value greater than or equal to 0.1 Y/X at 25 degrees Celsius contained in the waste. Constituent-specific adjustment factors (fm25D) can be obtained by contacting the Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Other test methods may be

used if they meet the requirements in Subsections R315-265-1084(a)(3)(iii)(A) or (B) and provided the requirement to reflect all organic compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X, which can also be expressed as 1.8 × 10−6 atmospheres/gram-mole/m3, at 25 degrees Celsius, is met.

(A) Any EPA standard method that has been validated in accordance with "Alternative Validation Procedure for EPA Waste and Wastewater Methods," 40 CFR part 63, appendix D.

(B) Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or Section 5.3, and the corresponding calculations in Section 6.1 or Section 6.3, of Method 301 in 40 CFR part 63, appendix A. The data are acceptable if they meet the criteria specified in Section 6.1.5 or Section 6.3.3 of Method 301. If correction is required under section 6.3.3 of Method 301, the data are acceptable if the correction factor is within the range 0.7 to 1.30. Other sections of Method 301 are not required.

(iv) Calculations. The average VO concentration on a mass-weighted basis shall be calculated by using the results for all waste determinations conducted in accordance with Subsections R315-265-1084(b)(3)(ii) and (iii) and the equation found in 40 CFR 265.1084(b)(3)(iv), which is adopted and incorporated by reference.

(v) Provided that the test method is appropriate for the waste as required under Subsection R315-265-1084(b)(3)(iii), compliance shall be determined based on the test method used by the owner or operator as recorded pursuant to Subsection R315-265-1090(f)(1).

(4) Procedure to determine the exit concentration limit for a treated hazardous waste.

(i) The point of waste origination for each hazardous waste treated by the process at the same time shall be identified.

(ii) If a single hazardous waste stream is identified in Subsection R315-265-1084(b)(4)(i), then the exit concentration limit shall be 500 ppmw.

(iii) If more than one hazardous waste stream is identified in Subsection R315-265-1084(b)(4)(i), then the average VO concentration of each hazardous waste stream at the point of waste origination shall be determined in accordance with the requirements of Subsection R315-265-1084(a). The exit concentration limit shall be calculated by using the results determined for each individual hazardous waste stream and the equation found in 40 CFR 265.1084(b)(4)(iii), which is adopted and incorporated by reference.

(5) Procedure to determine the organic reduction efficiency for a treated hazardous waste.

(i) The organic reduction efficiency for a treatment process shall be determined based on results for a minimum of three consecutive runs.

(ii) All hazardous waste streams entering the treatment process and all hazardous waste streams exiting the treatment process shall be identified. The owner or operator shall prepare a sampling plan for measuring these streams that accurately reflects the retention time of the hazardous waste in the process.

(iii) For each run, information shall be determined for each hazardous waste stream identified in Subsection R315-265-1084(b)(5)(ii) using the following procedures:

(A) The mass quantity of each hazardous waste stream entering the process and the mass quantity of each hazardous waste stream exiting the process shall be determined.

(B) The average VO concentration at the point of waste origination of each hazardous waste stream entering the process during the run shall be determined in accordance with the requirements of Subsection R315-265-1084(a)(3). The average VO concentration at the point of waste treatment of each waste stream exiting the process during the run shall be determined in accordance with the requirements of Subsection R315-265-1084(b)(3).

(iv) The waste volatile organic mass flow entering the process and the waste volatile organic mass flow exiting the process shall be calculated by using the results determined in accordance with Subsection R315-265-1084(b)(5)(iii) and the equations found in 40 CFR 265.1084(b)(5)(iv), which is adopted and incorporated by reference.

(v) The organic reduction efficiency of the process shall be calculated by using the results determined in accordance with Subsection R315-265-1084(b)(5)(iv) and the equation found in 40 CFR 265.1084(b)(5)(v), which is adopted and incorporated by reference.

(6) Procedure to determine the organic biodegradation efficiency for a treated hazardous waste.

(i) The fraction of organics biodegraded shall be determined using the procedure specified in 40 CFR part 63, appendix C.

(ii) The organic biodegradation efficiency shall be calculated by using the equation found in 40 CFR 265.1084(b)(6)(ii), which is adopted and incorporated by reference.

(7) Procedure to determine the required organic mass removal rate for a treated hazardous waste.

(i) All of the hazardous waste streams entering the treatment process shall be identified.

(ii) The average VO concentration of each hazardous waste stream at the point of waste origination shall be determined in accordance with the requirements of Subsection R315-265-1084(a).

(iii) For each individual hazardous waste stream that has an average VO concentration equal to or greater than 500 ppmw at the point of waste origination, the average volumetric flow rate and the density of the hazardous waste stream at the point of waste origination shall be determined.

(iv) The required organic mass removal rate shall be calculated by using the average VO concentration, average volumetric flow rate, and density determined for each individual hazardous waste stream, and the equation found in 40 CFR 265.1084(b)(7)(iv), which is adopted and incorporated by reference.

(8) Procedure to determine the actual organic mass removal rate (MR) for a treated hazardous waste.

(i) The MR shall be determined based on results for a minimum of three consecutive runs. The sampling time for each run shall be 1 hour.

(ii) The waste volatile organic mass flow entering the process (Eb) and the waste volatile organic mass flow exiting the process (Ea) shall be determined in accordance with the requirements of Subsection R315-265-1084(b)(5)(iv).

(iii) The MR shall be calculated by using the mass flow rate determined in accordance with the requirements of Subsection R315-265-1084(b)(8)(ii) and the following equation:

MR = Eb -- Ea

Where:

MR = Actual organic mass removal rate, kg/hr.

Eb = Waste volatile organic mass flow entering process as determined in accordance with the requirements of Subsection R315-265-1084(b)(5)(iv), kg/hr.

Ea = Waste volatile organic mass flow exiting process as determined in accordance with the requirements of Subsection R315-265-1084(b)(5)(iv), kg/hr.

(9) Procedure to determine the actual organic mass biodegradation rate (MRbio) for a treated hazardous waste.

(i) The MRbio shall be determined based on results for a minimum of three consecutive runs. The sampling time for each run shall be 1 hour.

(ii) The waste organic mass flow entering the process (Eb) shall be determined in accordance with the requirements of Subsection R315-265-1084(b)(5)(iv).

(iii) The fraction of organic biodegraded (Fbio) shall be determined using the procedure specified in 40 CFR part 63, appendix C.

(iv) The MRbio shall be calculated by using the mass flow rates and fraction of organic biodegraded determined in accordance with the requirements of Subsections R315-265-1084(b)(9)(ii) and (b)(9)(iii), respectively, and the following equation:

MRbio = Eb × Fbio

Where:

MRbio = Actual organic mass biodegradation rate, kg/hr.

Eb = Waste organic mass flow entering process as determined in accordance with the requirements of Subsection R315-265-1084(b)(5)(iv), kg/hr.

Fbio = Fraction of organic biodegraded as determined in accordance with the requirements of Subsection R315-265-1084(b)(9)(iii).

(c) Procedure to determine the maximum organic vapor pressure of a hazardous waste in a tank.

(1) An owner or operator shall determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with the standards specified in Subsection R315-265-1085(c).

(2) An owner or operator shall use either direct measurement as specified in Subsection R315-265-1084(c)(3) or knowledge of the waste as specified by Subsection R315-265-1084(c)(4) to determine the maximum organic vapor pressure which is representative of the hazardous waste composition stored or treated in the tank.

(3) Direct measurement to determine the maximum organic vapor pressure of a hazardous waste.

(i) Sampling. A sufficient number of samples shall be collected to be representative of the waste contained in the tank. All samples shall be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan shall describe the procedure by which representative samples of the hazardous waste are collected such that a minimum loss of organics occurs throughout the sample collection and handling process and by which sample integrity is maintained. A copy of the written sampling plan shall be maintained on-site in the facility operating records. An example of acceptable sample collection and handling procedures may be found in Method 25D in 40 CFR part 60, appendix A.

(ii) Analysis. Any appropriate one of the following methods may be used to analyze the samples and compute the maximum organic vapor pressure of the hazardous waste:

(A) Method 25E in 40 CFR part 60 appendix A;

(B) Methods described in American Petroleum Institute Publication 2517, Third Edition, February 1989, "Evaporative Loss from External Floating-Roof Tanks," incorporated by reference---refer to Section R315-260-11;

(C) Methods obtained from standard reference texts;

(D) ASTM Method 2879-92, incorporated by reference---refer to Section R315-260-11; and

(E) Any other method approved by the Director.

(4) Use of knowledge to determine the maximum organic vapor pressure of the hazardous waste. Documentation shall be prepared and recorded that presents the information used as the basis for the owner's or operator's knowledge that the maximum organic vapor pressure of the hazardous waste is less than the maximum vapor pressure limit listed in Subsection R315-265-1085(b)(1)(i) for the applicable tank design capacity category. An example of information that may be used is documentation that the hazardous waste is generated by a process for which at other locations it previously has been determined by direct measurement that the waste maximum organic vapor pressure is less than the maximum vapor pressure limit for the appropriate tank design capacity category.

(d) Procedure for determining no detectable organic emissions for the purpose of complying with Sections R315-265-1080 through R315-265-1090:

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface, for example, a location where organic vapor leakage could occur, on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: The interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure relief valve.

(2) The test shall be performed if the unit contains a hazardous waste having an organic concentration representative of the range of concentrations for the hazardous waste expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the hazardous waste placed in the waste management unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air, less than 10 ppmv hydrocarbon in air, and

(ii) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppmv methane or n-hexane.

(6) The background level shall be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21 of 40 CFR part 60, appendix A. If the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. If the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn, for example, some pressure relief devices, the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 500 ppmv except if monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison shall be as specified in Subsection R315-265-1084(d)(9). If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.

(9) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level shall be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

R315-265-1085. Air Emission Standards for Tanks, Surface Impoundments, and Containers -- Standards: Tanks.

(a) The provisions of Section R315-265-1085 apply to the control of air pollutant emissions from tanks for which Subsection R315-265-1083(b) references the use of Section R315-265-1085 for such air emission control.

(b) The owner or operator shall control air pollutant emissions from each tank subject to Section R315-265-1085 in accordance with the following requirements, as applicable:

(1) For a tank that manages hazardous waste that meets all of the conditions specified in Subsections R315-265-1085(b)(1)(i) through R315-265-1085(b)(1)(iii), the owner or operator shall control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in Subsection R315-265-1085(c) or the Tank Level 2 controls specified in Subsection R315-265-1085(d).

(i) The hazardous waste in the tank has a maximum organic vapor pressure which is less than the maximum organic vapor pressure limit for the tank's design capacity category as follows:

(A) For a tank design capacity equal to or greater than 151 m3, the maximum organic vapor pressure limit for the tank is 5.2 kPa.

(B) For a tank design capacity equal to or greater than 75 m3 but less than 151 m3, the maximum organic vapor pressure limit for the tank is 27.6 kPa.

(C) For a tank design capacity less than 75 m3, the maximum organic vapor pressure limit for the tank is 76.6 kPa.

(ii) The hazardous waste in the tank is not heated by the owner or operator to a temperature that is greater than the temperature at which the maximum organic vapor pressure of the hazardous waste is determined for the purpose of complying with Subsection R315-265-1085(b)(1)(i).

(iii) The hazardous waste in the tank is not treated by the owner or operator using a waste stabilization process, as defined in Section R315-265-1081.

(2) For a tank that manages hazardous waste that does not meet all of the conditions specified in Subsections R315-265-1085(b)(1)(i) through R315-265-1085(b)(1)(iii), the owner or operator shall control air pollutant emissions from the tank by using Tank Level 2 controls in accordance with the requirements of Subsection R315-265-1085(d). Examples of tanks required to use Tank Level 2 controls include: A tank used for a waste stabilization process; and a tank for which the hazardous waste in the tank has a maximum organic vapor pressure that is equal to or greater than the maximum organic vapor pressure limit for the tank's design capacity category as specified in Subsection R315-265-1085(b)(1)(i).

(c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls shall meet the requirements specified in Subsections R315-265-1085(c)(1) through R315-265-1085(c)(4):

(1) The owner or operator shall determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure shall be determined using the procedures specified in Subsection R315-265-1084(c). Thereafter, the owner or operator shall perform a new determination if changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design capacity category specified in Subsection R315-265-1085(b)(1)(i), as applicable to the tank.

(2) The tank shall be equipped with a fixed roof designed to meet the following specifications:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank. The fixed roof may be a separate cover installed on the tank, for example, a removable cover mounted on an open-top tank, or may be an integral part of the tank structural design, for example, a horizontal cylindrical tank equipped with a hatch.

(ii) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(iii) Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either:

(A) Equipped with a closure device designed to operate such that if the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

(B) Connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating if hazardous waste is managed in the tank, except as provided for in Subsections R315-265-1085(c)(2)(iii)(B)(1) and (2).

(1) During periods it is necessary to provide access to the tank for performing the activities of Subsection R315-265-1085(c)(2)(iii)(B)(2), venting of the vapor headspace underneath the fixed roof to the control device is not required, opening of closure devices is allowed, and removal of the fixed roof is allowed. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device.

(2) During periods of routine inspection, maintenance, or other activities needed for normal operations, and for the removal of accumulated sludge or other residues from the bottom of the tank.

(iv) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(3) If a hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(i) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of tank.

(ii) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions if the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

(iii) Opening of a safety device, as defined in Section R315-265-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The owner or operator shall inspect the air emission control equipment in accordance with the following requirements.

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform an initial inspection of the fixed roof and its closure devices on or before the date that the tank becomes subject to this section. Thereafter, the owner or operator shall perform the inspections at least once every year except under the special conditions provided for in Subsection R315-265-1085(l).

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1085(k).

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-265-1090(b).

(d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls shall use one of the following tanks:

(1) A fixed-roof tank equipped with an internal floating roof in accordance with the requirements specified in Subsection R315-265-1085(e);

(2) A tank equipped with an external floating roof in accordance with the requirements specified in Subsection R315-265-1085(f);

(3) A tank vented through a closed-vent system to a control device in accordance with the requirements specified in Subsection R315-265-1085(g);

(4) A pressure tank designed and operated in accordance with the requirements specified in Subsection R315-265-1085(h); or

(5) A tank located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device in accordance with the requirements specified in Subsection R315-265-1085(i).

(e) The owner or operator who controls air pollutant emissions from a tank using a fixed-roof with an internal floating roof shall meet the requirements specified in Subsections R315-265-1085(e)(1) through R315-265-1085(e)(3).

(1) The tank shall be equipped with a fixed roof and an internal floating roof in accordance with the following requirements:

(i) The internal floating roof shall be designed to float on the liquid surface except when the floating roof must be supported by the leg supports.

(ii) The internal floating roof shall be equipped with a continuous seal between the wall of the tank and the floating roof edge that

meets either of the following requirements:

(A) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in Section R315-265-1081; or

(B) Two continuous seals mounted one above the other. The lower seal may be a vapor-mounted seal.

(iii) The internal floating roof shall meet the following specifications:

(A) Each opening in a noncontact internal floating roof except for automatic bleeder vents, vacuum breaker vents, and the rim space vents is to provide a projection below the liquid surface.

(B) Each opening in the internal floating roof shall be equipped with a gasketed cover or a gasketed lid except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains.

(C) Each penetration of the internal floating roof for the purpose of sampling shall have a slit fabric cover that covers at least 90 percent of the opening.

(D) Each automatic bleeder vent and rim space vent shall be gasketed.

(E) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(F) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) If the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

(ii) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports.

(iii) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof shall be bolted or fastened closed, for example, no visible gaps. Rim space vents are to be set to open only if the internal floating roof is not floating or if the pressure beneath the rim exceeds the manufacturer's recommended setting.

(3) The owner or operator shall inspect the internal floating roof in accordance with the procedures specified as follows:

(i) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: The internal floating roof is not floating on the surface of the liquid inside the tank; liquid has accumulated on top of the internal floating roof; any portion of the roof seals have detached from the roof rim; holes, tears, or other openings are visible in the seal fabric; the gaskets no longer close off the hazardous waste surface from the atmosphere; or the slotted membrane has more than 10 percent open area.

(ii) The owner or operator shall inspect the internal floating roof components as follows except as provided in Subsection R315-265-1085(e)(3)(iii):

(A) Visually inspect the internal floating roof components through openings on the fixed-roof, for example, manholes and roof hatches, at least once every 12 months after initial fill, and

(B) Visually inspect the internal floating roof, primary seal, secondary seal, if one is in service, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every 10 years.

(iii) As an alternative to performing the inspections specified in Subsection R315-265-1085(e)(3)(ii) for an internal floating roof equipped with two continuous seals mounted one above the other, the owner or operator may visually inspect the internal floating roof, primary and secondary seals, gaskets, slotted membranes, and sleeve seals, if any, each time the tank is emptied and degassed and at least every 5 years.

(iv) Prior to each inspection required by Subsections R315-265-1085(e)(3)(ii) or R315-265-1085(e)(3)(iii), the owner or operator shall notify the Director in advance of each inspection to provide the Director with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Director of the date and location of the inspection as follows:

(A) Prior to each visual inspection of an internal floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the Director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-265-1085(e)(3)(iv)(B).

(B) If a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Director as soon as possible, but no later than 7 calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Director at least 7 calendar days before refilling the tank.

(v) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1085(k).

(vi) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-265-1090(b).

(4) Safety devices, as defined in Section R315-265-1081, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-265-1085(e).

(f) The owner or operator who controls air pollutant emissions from a tank using an external floating roof shall meet the requirements specified in Subsections R315-265-1085(f)(1) through R315-265-1085(f)(3).

(1) The owner or operator shall design the external floating roof in accordance with the following requirements:

(i) The external floating roof shall be designed to float on the liquid surface except if the floating roof must be supported by the leg supports.

(ii) The floating roof shall be equipped with two continuous seals, one above the other, between the wall of the tank and the roof edge. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be a liquid-mounted seal or a metallic shoe seal, as defined in Section R315-265-1081. The total area of the gaps between the tank wall and the primary seal shall not exceed 212 square centimeters (cm2) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 3.8 centimeters (cm). If a metallic shoe seal is used for the primary seal, the metallic shoe seal shall be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 centimeters above the liquid surface.

(B) The secondary seal shall be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal shall not exceed 21.2 square centimeters (cm2) per meter of tank diameter, and the width of any portion of these gaps shall not exceed 1.3 centimeters (cm).

(iii) The external floating roof shall meet the following specifications:

(A) Except for automatic bleeder vents, vacuum breaker vents, and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface.

(B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid.

(C) Each access hatch and each gauge float well shall be equipped with a cover designed to be bolted or fastened if the cover is secured in the closed position.

(D) Each automatic bleeder vent and each rim space vent shall be equipped with a gasket.

(E) Each roof drain that empties into the liquid managed in the tank shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(F) Each unslotted and slotted guide pole well shall be equipped with a gasketed sliding cover or a flexible fabric sleeve seal.

(G) Each unslotted guide pole shall be equipped with a gasketed cap on the end of the pole.

(H) Each slotted guide pole shall be equipped with a gasketed float or other device which closes off the liquid surface from the atmosphere.

(I) Each gauge hatch and each sample well shall be equipped with a gasketed cover.

(2) The owner or operator shall operate the tank in accordance with the following requirements:

(i) If the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be completed as soon as practical.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof shall be secured and maintained in a closed position at all times except when the closure device must be open for access.

(iii) Covers on each access hatch and each gauge float well shall be bolted or fastened when secured in the closed position.

(iv) Automatic bleeder vents shall be set closed at all times if the roof is floating, except if the roof is being floated off or is being landed on the leg supports.

(v) Rim space vents shall be set to open only at those times that the roof is being floated off the roof leg supports or if the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(vi) The cap on the end of each unslotted guide pole shall be secured in the closed position at all times except if measuring the level or collecting samples of the liquid in the tank.

(vii) The cover on each gauge hatch or sample well shall be secured in the closed position at all times except if the hatch or well must be opened for access.

(viii) Both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.

(3) The owner or operator shall inspect the external floating roof in accordance with the procedures specified as follows:

(i) The owner or operator shall measure the external floating roof seal gaps in accordance with the following requirements:

(A) The owner or operator shall perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years.

(B) The owner or operator shall perform measurements of gaps between the tank wall and the secondary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every year.

(C) If a tank ceases to hold hazardous waste for a period of one year or more, subsequent introduction of hazardous waste into the tank shall be considered an initial operation for the purposes of Subsections R315-265-1085(f)(3)(i)(A) and R315-265-1085(f)(3)(i)(B).

(D) The owner or operator shall determine the total surface area of gaps in the primary seal and in the secondary seal individually using the following procedure:

(1) The seal gap measurements shall be performed at one or more floating roof levels if the roof is floating off the roof supports.

(2) Seal gaps, if any, shall be measured around the entire perimeter of the floating roof in each place where a 0.32-centimeter (cm) diameter uniform probe passes freely, without forcing or binding against the seal, between the seal and the wall of the tank and measure the circumferential distance of each such location.

(3) For a seal gap measured under Subsection R315-265-1085(f)(3), the gap surface area shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(4) The total gap area shall be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type as specified in Subsection R315-265-1085(f)(1)(ii).

(E) In the event that the seal gap measurements do not conform to the specifications in Subsection R315-265-1085(f)(1)(ii), the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1085(k).

(F) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-265-1090(b).

(ii) The owner or operator shall visually inspect the external floating roof in accordance with the following requirements:

(A) The floating roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to: Holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(B) The owner or operator shall perform an initial inspection of the external floating roof and its closure devices on or before the date that the tank becomes subject to Section R315-265-1085. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-265-1085(l).

(C) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1085 (k).

(D) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-265-1090(b).

(iii) Prior to each inspection required by Subsections R315-265-1085(f)(3)(i) or R315-265-1085(f)(3)(ii), the owner or operator shall notify the Director in advance of each inspection to provide the Director with the opportunity to have an observer present during the inspection. The owner or operator shall notify the Director of the date and location of the inspection as follows:

(A) Prior to each inspection to measure external floating roof seal gaps as required under Subsection R315-265-1085(f)(3)(i), written notification shall be prepared and sent by the owner or operator so that it is received by the Director at least 30 calendar days before the date the measurements are scheduled to be performed.

(B) Prior to each visual inspection of an external floating roof in a tank that has been emptied and degassed, written notification shall be prepared and sent by the owner or operator so that it is received by the Director at least 30 calendar days before refilling the tank except when an inspection is not planned as provided for in Subsection R315-265-1085(f)(3)(iii)(C).

(C) If a visual inspection is not planned and the owner or operator could not have known about the inspection 30 calendar days before refilling the tank, the owner or operator shall notify the Director as soon as possible, but no later than 7 calendar days before refilling of the tank. This notification may be made by telephone and immediately followed by a written explanation for why the inspection is unplanned. Alternatively, written notification, including the explanation for the unplanned inspection, may be sent so that it is received by the Director at least 7 calendar days before refilling the tank.

(4) Safety devices, as defined in Section R315-265-1081, may be installed and operated as necessary on any tank complying with the requirements of Subsection R315-265-1085(f).

(g) The owner or operator who controls air pollutant emissions from a tank by venting the tank to a control device shall meet the requirements specified in Subsections R315-265-1085(g)(1) through R315-265-1085(g)(3).

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-265-1088.

(2) If a hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of a tank.

(ii) Opening of a safety device, as defined in Section R315-265-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following

procedures:

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in Section R315-265-1088.

(iii) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to Section R315-265-1085. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-265-1085(l).

(iv) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1085(k).

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-265-1090(b).

(h) The owner or operator who controls air pollutant emissions by using a pressure tank shall meet the following requirements.

(1) The tank shall be designed not to vent to the atmosphere as a result of compression of the vapor headspace in the tank during filling of the tank to its design capacity.

(2) All tank openings shall be equipped with closure devices designed to operate with no detectable organic emissions as determined using the procedure specified in Subsection R315-265-1084(d).

(3) If a hazardous waste is in the tank, the tank shall be operated as a closed system that does not vent to the atmosphere except under either of the following conditions as specified in Subsections R315-265-1085(h)(3)(i) or R315-265-1085(h)(3)(ii).

(i) At those times when opening of a safety device, as defined in Section R315-265-1081, is required to avoid an unsafe condition.

(ii) At those times when purging of inerts from the tank is required and the purge stream is routed to a closed-vent system and control device designed and operated in accordance with the requirements of Section R315-265-1088.

(i) The owner or operator who controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device shall meet the requirements specified in Subsections R315-265-1085(i)(1) through R315-265-1085(i)(4).

(1) The tank shall be located inside an enclosure. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(2) The enclosure shall be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section R315-265-1088.

(3) Safety devices, as defined in Section R315-265-1081, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of Subsections R315-265-1085(i)(1) and R315-265-1085(i)(2).

(4) The owner or operator shall inspect and monitor the closed-vent system and control device as specified in Section R315-265-1088.

(j) The owner or operator shall transfer hazardous waste to a tank subject to Section R315-265-1085 in accordance with the following requirements:

(1) Transfer of hazardous waste, except as provided in Subsection R315-265-1085(j)(2), to the tank from another tank subject to Section R315-265-1085 or from a surface impoundment subject to Section R315-265-1086 shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system if it meets the requirements of 40 CFR part 63, subpart RR--National Emission Standards for Individual Drain Systems.

(2) The requirements of Subsection R315-265-1085(j)(1) do not apply if transferring a hazardous waste to the tank under any of the following conditions:

(i) The hazardous waste meets the average VO concentration conditions specified in Subsection R315-265-1083(c)(1) at the point of waste origination.

(ii) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Subsection R315-265-1083(c)(2).

(iii) The hazardous waste meets the requirements of Subsection R315-265-1083(c)(4).

(k) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of Subsections R315-265-1085(c)(4), R315-265-1085(e)(3), R315-265-1085(f)(3), or R315-265-1085(g)(3) as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in Subsection R315-265-1085(k)(2).

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the

hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(l) Following the initial inspection and monitoring of the cover as required by the applicable provisions of Sections R315-265-1080 through R315-265-1090, subsequent inspection and monitoring may be performed at intervals longer than one year under the following special conditions:

(1) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the owner or operator may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

(i) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

(ii) Develop and implement a written plan and schedule to inspect and monitor the cover, using the procedures specified in the applicable section of Sections R315-265-1080 through R315-265-1090, as frequently as practicable during those times when a worker can safely access the cover.

(2) In the case when a tank is buried partially or entirely underground, an owner or operator is required to inspect and monitor, as required by the applicable provisions of Section R315-265-1085, only those portions of the tank cover and those connections to the tank, for example, fill ports, access hatches, gauge wells, etc., that are located on or above the ground surface.

R315-265-1086. Air Emission Standards for Tanks, Surface Impoundments, and Containers -- Standards: Surface Impoundments.

(a) The provisions of Section R315-265-1086 apply to the control of air pollutant emissions from surface impoundments for which Subsection R315-265-1083(b) references the use of Section R315-265-1086 for such air emission control.

(b) The owner or operator shall control air pollutant emissions from the surface impoundment by installing and operating either of the following:

(1) A floating membrane cover in accordance with the provisions specified in Subsection R315-265-1086(c); or

(2) A cover that is vented through a closed-vent system to a control device in accordance with the requirements specified in Subsection R315-265-1086(d).

(c) The owner or operator who controls air pollutant emissions from a surface impoundment using a floating membrane cover shall meet the requirements specified in Subsections R315-265-1086(c)(1) through R315-265-1086(c)(3).

(1) The surface impoundment shall be equipped with a floating membrane cover designed to meet the following specifications:

(i) The floating membrane cover shall be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.

(ii) The cover shall be fabricated from a synthetic membrane material that is either:

(A) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm); or

(B) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in Subsection R315-265-1086(c)(1)(ii)(A) and chemical and physical properties that maintain the material integrity for the intended service life of the material.

(iii) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.

(iv) Except as provided for in Subsection R315-265-1086(c)(1)(v), each opening in the floating membrane cover shall be equipped with a closure device designed to operate such that if the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

(v) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain shall be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal.

(vi) The closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of any contact with the liquid and its vapor managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the floating membrane cover is installed.

(2) If a hazardous waste is in the surface impoundment, the floating membrane cover shall float on the liquid and each closure device shall be secured in the closed position except as follows:

(i) Opening of closure devices or removal of the cover is allowed at the following times:

(A) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly replace the cover and secure the closure device in the closed position, as applicable.

(B) To remove accumulated sludge or other residues from the bottom of surface impoundment.

(ii) Opening of a safety device, as defined in Section R315-265-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect the floating membrane cover in accordance with the following procedures:

(i) The floating membrane cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The owner or operator shall perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to Section R315-265-1086. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-265-1086(g).

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1086(f).

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-265-1090(c).

(d) The owner or operator who controls air pollutant emissions from a surface impoundment using a cover vented to a control device shall meet the requirements specified in Subsections R315-265-1086(d)(1) through R315-265-1086(d)(3).

(1) The surface impoundment shall be covered by a cover and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The cover and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.

(ii) Each opening in the cover not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the cover is less than atmospheric pressure if the control device is operating, the closure devices shall be designed to operate such that if the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the cover is equal to or greater than atmospheric pressure if the control device is operating, the closure device shall be designed to operate with no detectable organic emissions using the procedure specified in Subsection R315-265-1084(d).

(iii) The cover and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the cover and closure devices throughout their intended service life. Factors to be considered when selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability; the effects of any contact with the liquid or its vapors managed in the surface impoundment; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the surface impoundment on which the cover is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-265-1088.

(2) If a hazardous waste is in the surface impoundment, the cover shall be installed with each closure device secured in the closed position and the vapor headspace underneath the cover vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the cover is allowed at the following times:

(A) To provide access to the surface impoundment for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the surface impoundment, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the surface impoundment.

(B) To remove accumulated sludge or other residues from the bottom of the surface impoundment.

(ii) Opening of a safety device, as defined in Section R315-265-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the following procedures:

(i) The surface impoundment cover and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(ii) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in Section R315-265-1088.

(iii) The owner or operator shall perform an initial inspection of the air emission control equipment on or before the date that the surface impoundment becomes subject to Section R315-265-1086. Thereafter, the owner or operator shall perform the inspections at least once every year except for the special conditions provided for in Subsection R315-265-1086(g).

(iv) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1086(f).

(v) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in Subsection R315-265-1090(c).

(e) The owner or operator shall transfer hazardous waste to a surface impoundment subject to Section R315-265-1086 in accordance with the following requirements:

(1) Transfer of hazardous waste, except as provided in Subsection R315-265-1086(e)(2), to the surface impoundment from another surface impoundment subject to Section R315-265-1086 or from a tank subject to Section R315-265-1085 shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of

complying with this provision, an individual drain system is considered to be a closed system if it meets the requirements of 40 CFR part 63, subpart RR--National Emission Standards for Individual Drain Systems.

(2) The requirements of Subsection R315-265-1086(e)(1) do not apply if transferring a hazardous waste to the surface impoundment under either of the following conditions:

(i) The hazardous waste meets the average VO concentration conditions specified in Subsection R315-265-1083(c)(1) at the point of waste origination.

(ii) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Subsection R315-265-1083(c)(2).

(iii) The hazardous waste meets the requirements of Subsection R315-265-1083(c)(4).

(f) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of Subsections R315-265-1086(c)(3) or R315-265-1086(d)(3) as follows:

(1) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection, and repair shall be completed as soon as possible but no later than 45 calendar days after detection except as provided in Subsection R315-265-1086(f)(2).

(2) Repair of a defect may be delayed beyond 45 calendar days if the owner or operator determines that repair of the defect requires emptying or temporary removal from service of the surface impoundment and no alternative capacity is available at the site to accept the hazardous waste normally managed in the surface impoundment. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.

(g) Following the initial inspection and monitoring of the cover as required by the applicable provisions of Sections R315-265-1080 through R315-265-1090, subsequent inspection and monitoring may be performed at intervals longer than one year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

(1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or to monitor, if required.

(2) Develop and implement a written plan and schedule to inspect and monitor the cover using the procedures specified in the applicable section of Sections R315-265-1080 through R315-265-1090 as frequently as practicable during those times when a worker can safely access the cover.

R315-265-1087. Air Emission Standards for Tanks, Surface Impoundments, and Containers -- Standards: Containers.

(a) The provisions of Section R315-265-1087 apply to the control of air pollutant emissions from containers for which Subsection R315-265-1083(b) references the use of Section R315-265-1087 for such air emission control.

(b) General requirements.

(1) The owner or operator shall control air pollutant emissions from each container subject to Section R315-265-1087 in accordance with the following requirements, as applicable to the container, except if the special provisions for waste stabilization processes specified in Subsection R315-265-1087(b)(2) apply to the container.

(i) For a container having a design capacity greater than 0.1 m3 and less than or equal to 0.46 m3, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-265-1087(c).

(ii) For a container having a design capacity greater than 0.46 m3 that is not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in Subsection R315-265-1087(c).

(iii) For a container having a design capacity greater than 0.46 m3 that is in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in Subsection R315-265-1087(d).

(2) If a container having a design capacity greater than 0.1 m3 is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in Subsection R315-265-1087(e) at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.

(c) Container Level 1 standards.

(1) A container using Container Level 1 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in Subsection R315-265-1087(f).

(ii) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that if the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container, for example, a lid on a drum or a suitably secured tarp on a roll-off box, or may be an integral part of the container structural design, for example, a "portable tank" or bulk cargo container equipped with a screw-type cap.

(iii) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

(2) A container used to meet the requirements of Subsections R315-265-1087(c)(1)(ii) or R315-265-1087(c)(1)(iii) shall be

equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices shall include: Organic vapor permeability, the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

(3) If a hazardous waste is in a container using Container Level 1 controls, the owner or operator shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:

(A) If the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) If discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-265-1087, an empty container as defined in Subsection R315-261-7(b) may be open to the atmosphere at any time, for example, covers and closure devices are not required to be secured in the closed position on an empty container.

(B) If discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in Subsection R315-261-7(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed if access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or if a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the design specifications of the container. The device shall be designed to operate with no detectable organic emissions if the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position if the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in Section R315-265-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The owner or operator of containers using Container Level 1 controls shall inspect the containers and their covers and closure devices as follows:

(i) If a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, for example, does not meet the conditions for an empty container as specified in Subsection R315-261-7(b), the owner or operator shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container if the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility, for example, the date the container becomes subject to the container standards of Sections R315-265-1080 through R315-265-1090. For purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, EPA Forms 8700-22 and 8700-22A, as required under Section R315-265-71. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1087(c)(4)(iii).

(ii) If a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container if the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1087(c)(4)(iii).

(iii) If a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste shall be removed from the

container and the container shall not be used to manage hazardous waste until the defect is repaired.

(5) The owner or operator shall maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m3 or greater, which do not meet applicable DOT regulations as specified in Subsection R315-265-1087(f), are not managing hazardous waste in light material service.

(d) Container Level 2 standards.

(1) A container using Container Level 2 controls is one of the following:

(i) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as specified in Subsection R315-265-1087(f).

(ii) A container that operates with no detectable organic emissions as defined in Section R315-265-1081 and determined in accordance with the procedure specified in Subsection R315-265-1087(g).

(iii) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR part 60, appendix A, Method 27 in accordance with the procedure specified in Subsection R315-265-1087(h).

(2) Transfer of hazardous waste in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-265-1087(d) include using any one of the following: A submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

(3) If a hazardous waste is in a container using Container Level 2 controls, the owner or operator shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position except as follows:

(i) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:

(A) If the container is filled to the intended final level in one continuous operation, the owner or operator shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

(B) If discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

(ii) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:

(A) For the purpose of meeting the requirements of Section R315-265-1087, an empty container as defined in Subsection R315-261-7(b) may be open to the atmosphere at any time, for example, covers and closure devices are not required to be secured in the closed position on an empty container.

(B) If discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in Subsection R315-261-7(b), the owner or operator shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

(iii) Opening of a closure device or cover is allowed if access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or if a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.

(iv) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emission if the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position if the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.

(v) Opening of a safety device, as defined in Section R315-265-1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

(4) The owner or operator of containers using Container Level 2 controls shall inspect the containers and their covers and closure devices as follows:

(i) If a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility, for example, does not meet the conditions for an empty container as specified in Subsection R315-261-7(b), the owner or operator shall visually inspect the container and

its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container if the cover and closure devices are secured in the closed position. The container visual inspection shall be conducted on or before the date that the container is accepted at the facility, for example, the date the container becomes subject to the container standards of Sections R315-265-1080 through R315-265-1090. For purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, EPA Forms 8700-22 and 8700-22A, as required under Section R315-265-71. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1087(d)(4)(iii).

(ii) If a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container if the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of Subsection R315-265-1087(d)(4)(iii).

(iii) If a defect is detected for the container, cover, or closure devices, the owner or operator shall make first efforts at repair of the defect no later than 24 hours after detection, and repair shall be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.

(e) Container Level 3 standards.

(1) A container using Container Level 3 controls is one of the following:

(i) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of Subsection R315-265-1087(e)(2)(ii).

(ii) A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of Subsections R315-265-1087(e)(2)(i) and R315-265-1087(e)(2)(ii).

(2) The owner or operator shall meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:

(i) The container enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B. The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator shall perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.

(ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of Section R315-265-1088.

(3) Safety devices, as defined in Section R315-265-1081, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of Subsection R315-265-1087(e)(1).

(4) Owners and operators using Container Level 3 controls in accordance with the provisions of Sections R315-265-1080 through R315-265-1090 shall inspect and monitor the closed-vent systems and control devices as specified in Section R315-265-1088.

(5) Owners and operators that use Container Level 3 controls in accordance with the provisions of Sections R315-265-1080 through R315-265-1090 shall prepare and maintain the records specified in Subsection R315-265-1090(d).

(6) Transfer of hazardous waste in or out of a container using Container Level 3 controls shall be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the Director considers to meet the requirements of Subsection R315-265-1087(e) include using any one of the following: A submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

(f) For the purpose of compliance with Subsections R315-265-1087(c)(1)(i) or R315-265-1087(d)(1)(i), containers shall be used that meet the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation as follows:

(1) The container meets the applicable requirements specified in 49 CFR part 178--Specifications for Packaging or 49 CFR part 179--Specifications for Tank Cars.

(2) Hazardous waste is managed in the container in accordance with the applicable requirements specified in 49 CFR part 107, subpart B--Exemptions; 49 CFR part 172--Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR part 173--Shippers--General Requirements for Shipments and Packages; and 49 CFR part 180--Continuing Qualification and Maintenance of Packagings.

(3) For the purpose of complying with Sections R315-265-1080 through R315-265-1090, no exceptions to the 49 CFR part 178 or part 179 regulations are allowed except as provided for in Subsection R315-265-1087(f)(4).

(4) For a lab pack that is managed in accordance with the requirements of 49 CFR part 178 for the purpose of complying with Sections R315-265-1080 through R315-265-1090, an owner or operator may comply with the exceptions for combination packagings specified in 49 CFR 173.12(b).

(g) To determine compliance with the no detectable organic emissions requirements of Subsection R315-265-1087(d)(1)(ii), the procedure specified in Subsection R315-265-1084(d) shall be used.

(1) Each potential leak interface, for example, a location where organic vapor leakage could occur, on the container, its cover, and associated closure devices, as applicable to the container, shall be checked. Potential leak interfaces that are associated with containers include, but are not limited to: The interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed if the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices shall be secured in the closed position.

(h) Procedure for determining a container to be vapor-tight using Method 27 of 40 CFR part 60, appendix A for the purpose of complying with Subsection R315-265-1087(d)(1)(iii).

(1) The test shall be performed in accordance with Method 27 of 40 CFR part 60, appendix A.

(2) A pressure measurement device shall be used that has a precision of plus or minus 2.5 mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.

(3) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within five minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

R315-265-1088. Air Emission Standards for Tanks, Surface Impoundments, and Containers -- Standards: Closed-Vent Systems and Control Devices.

(a) Section R315-265-1088 applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of Sections R315-265-1080 through R315-265-1090.

(b) The closed-vent system shall meet the following requirements:

(1) The closed-vent system shall route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in Subsection R315-265-1088(c).

(2) The closed-vent system shall be designed and operated in accordance with the requirements specified in Subsection R315-265-1033(j).

(3) If the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in Subsection R315-265-1088(b)(3)(i) or a seal or locking device as specified in Subsection R315-265-1088(b)(3)(ii). For the purpose of complying with Subsection R315-265-1088(b), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

(i) If a flow indicator is used to comply with Subsection R315-265-1088(b)(3), the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For Subsection R315-265-1088(b), a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.

(ii) If a seal or locking device is used to comply with Subsection R315-265-1088(b)(3), the device shall be placed on the mechanism by which the bypass device position is controlled, for example, valve handle, damper lever, if the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

(4) The closed-vent system shall be inspected and monitored by the owner or operator in accordance with the procedure specified in Subsection R315-265-1033(k).

(c) The control device shall meet the following requirements:

(1) The control device shall be one of the following devices:

(i) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;

(ii) An enclosed combustion device designed and operated in accordance with the requirements of Subsection R315-265-1033(c); or

(iii) A flare designed and operated in accordance with the requirements of Subsection R315-265-1033(d).

(2) The owner or operator who elects to use a closed-vent system and control device to comply with the requirements of Section R315-265-1088 shall comply with the requirements specified in Subsections R315-265-1088(c)(2)(i) through R315-265-1088(c)(2)(vi).

(i) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of Subsections R315-265-1088(c)(1)(i), R315-265-1088(c)(1)(ii), or R315-265-1088(c)(1)(iii), as applicable, shall not exceed 240 hours per year.

(ii) The specifications and requirements in Subsections R315-265-1088(c)(1)(i), R315-265-1088(c)(1)(ii), or R315-265-1088(c)(1)(iii) for control devices do not apply during periods of planned routine maintenance.

(iii) The specifications and requirements in Subsections R315-265-1088(c)(1)(i), R315-265-1088(c)(1)(ii), or R315-265-1088(c)(1)(iii) for control devices do not apply during a control device system malfunction.

(iv) The owner or operator shall demonstrate compliance with the requirements of Subsection R315-265-1088(c)(2)(i), for example, planned routine maintenance of a control device, during which the control device does not meet the specifications of Subsections R315-265-1088(c)(1)(i), R315-265-1088(c)(1)(ii), or R315-265-1088(c)(1)(iii), as applicable, shall not exceed 240 hours per year, by recording the information specified in Subsection R315-265-1090(e)(1)(v).

(v) The owner or operator shall correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

(vi) The owner or operator shall operate the closed-vent system such that gases, vapors, and fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction, for example, periods if the control device is not operating or not operating normally, except in cases if it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

(3) The owner or operator using a carbon adsorption system to comply with Subsection R315-265-1088(c)(1) shall operate and maintain the control device in accordance with the following requirements:

(i) Following the initial startup of the control device, all activated carbon in the control device shall be replaced with fresh carbon on a regular basis in accordance with the requirements of Subsections R315-265-1033(g) or R315-265-1033(h).

(ii) All carbon that is a hazardous waste and that is removed from the control device shall be managed in accordance with the requirements of Subsection R315-265-1033(m), regardless of the average volatile organic concentration of the carbon.

(4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with Subsection R315-265-1088(c)(1) shall operate and maintain the control device in accordance with the requirements of R315-265-1033(i).

(5) The owner or operator shall demonstrate that a control device achieves the performance requirements of Subsection R315-265-1088(c)(1) as follows:

(i) An owner or operator shall demonstrate using either a performance test as specified in Subsection R315-265-1088(c)(5)(iii) or a design analysis as specified in Subsection R315-265-1088(c)(5)(iv) the performance of each control device except for the following:

(A) A flare;

(B) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

(C) A boiler or process heater into which the vent stream is introduced with the primary fuel;

(D) A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under Rule R315-270 and has designed and operates the unit in accordance with the requirements of Sections R315-266-100 through R315-266-112; or

(E) A boiler or industrial furnace burning hazardous waste for which the owner or operator has designed and operates in accordance with the interim status requirements of Sections R315-266-100 through R315-266-112.

(ii) An owner or operator shall demonstrate the performance of each flare in accordance with the requirements specified in Subsection R315-265-1033(e).

(iii) For a performance test conducted to meet the requirements of Subsection R315-265-1088(c)(5)(i), the owner or operator shall use the test methods and procedures specified in Subsections R315-265-1034(c)(1) through R315-265-1034(c)(4).

(iv) For a design analysis conducted to meet the requirements of Subsection R315-265-1088(c)(5)(i), the design analysis shall meet the requirements specified in Subsection R315-265-1035(b)(4)(iii).

(v) The owner or operator shall demonstrate that a carbon adsorption system achieves the performance requirements of Subsection R315-265-1088(c)(1) based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

(6) If the owner or operator and the Director do not agree on a demonstration of control device performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of Subsection R315-265-1088(c)(5)(iii). The Director may choose to have an authorized representative observe the performance test.

(7) The closed-vent system and control device shall be inspected and monitored by the owner or operator in accordance with the procedures specified in Subsections R315-265-1033(f)(2) and R315-265-1033(k). The readings from each monitoring device required by Subsection R315-265-1033(f)(2) shall be inspected at least once each operating day to check control device operation. Any necessary corrective measures shall be immediately implemented to ensure the control device is operated in compliance with the requirements of Section R315-265-1088.

R315-265-1089. Air Emission Standards for Tanks, Surface Impoundments, and Containers -- Inspection and Monitoring Requirements.

(a) The owner or operator shall inspect and monitor air emission control equipment used to comply with Sections R315-265-1080 through R315-265-1090 in accordance with the applicable requirements specified in Sections R315-265-1085 through R315-265-1088.

(b) The owner or operator shall develop and implement a written plan and schedule to perform the inspections and monitoring required by Subsection R315-265-1089(a). The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under Section R315-265-15.

R315-265-1090. Air Emission Standards for Tanks, Surface Impoundments, and Containers -- Recordkeeping Requirements.

(a) Each owner or operator of a facility subject to requirements in Sections R315-265-1080 through R315-265-1090 shall record and maintain the information specified in Subsections R315-265-1090(b) through R315-265-1090(j), as applicable to the facility. Except for air emission control equipment design documentation and information required by Subsections R315-265-1090(i) and R315-265-1090(j), records required by Section R315-265-1090 shall be maintained in the operating record for a minimum of three years. Air emission control equipment design documentation shall be maintained in the operating record until the air emission control equipment is replaced or otherwise no longer in service. Information required by Subsections R315-265-1090(i) and R315-265-1090(j) shall be maintained in the operating record for as long as the waste management unit is not using air emission controls specified in Sections R315-265-1085 through R315-265-1088 in accordance with the conditions specified in Subsections R315-265-1080(d) or R315-265-1080(b)(7), respectively.

(b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section R315-265-1085 shall prepare and maintain records for the tank that include the following information:

(1) For each tank using air emission controls in accordance with the requirements of Section R315-265-1085, the owner or operator shall record:

(i) A tank identification number, or other unique identification description as selected by the owner or operator.

(ii) A record for each inspection required by Section R315-265-1085 that includes the following information:

(A) Date inspection was conducted.

(B) For each defect detected during the inspection: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section R315-265-1085, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(2) In addition to the information required by Subsection R315-265-1090(b)(1), the owner or operator shall record the following information, as applicable to the tank:

(i) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Subsection R315-265-1085(c) shall prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Subsection R315-265-1085(c). The records shall include the date and time the samples were collected, the analysis method used, and the analysis results.

(ii) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-265-1085(e) shall prepare and maintain documentation describing the floating roof design.

(iii) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Subsection R315-265-1085(f) shall prepare and maintain the following records:

(A) Documentation describing the floating roof design and the dimensions of the tank.

(B) Records for each seal gap inspection required by Subsection R315-265-1085(f)(3) describing the results of the seal gap measurements. The records shall include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Subsection R315-265-1085(f)(1), the records shall include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

(iv) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Subsection R315-265-1085(i) shall prepare and maintain the following records:

(A) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

(B) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-265-1090(e).

(c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section R315-265-1086 shall prepare and maintain records for the surface impoundment that include the following information:

(1) A surface impoundment identification number, or other unique identification description as selected by the owner or operator.

(2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Subsection R315-265-1086(c).

(3) A record for each inspection required by Section R315-265-1086 that includes the following information:

(i) Date inspection was conducted.

(ii) For each defect detected during the inspection the following information: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Subsection R315-265-1086(f), the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected.

(4) For a surface impoundment equipped with a cover and vented through a closed-vent system to a control device, the owner or operator shall prepare and maintain the records specified in Subsection R315-265-1090(e).

(d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section R315-265-1087 shall prepare and maintain records that include the following information:

(1) Records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T--Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

(2) Records required for the closed-vent system and control device in accordance with the requirements of Subsection R315-265-1090(e).

(e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section R315-265-1088 of this subpart shall prepare and maintain records that include the following information:

(1) Documentation for the closed-vent system and control device that includes:

(i) Certification that is signed and dated by the owner or operator stating that the control device is designed to operate at the performance level documented by a design analysis as specified in Subsection R315-265-1090(e)(1)(ii) or by performance tests as specified in Subsection R315-265-1090 (e)(1)(iii) if the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.

(ii) If a design analysis is used, then design documentation as specified in Subsection R315-265-1035(b)(4). The documentation shall include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Subsection R315-265-1035(b)(4)(iii) and certification by the owner or operator that the control equipment meets the applicable specifications.

(iii) If performance tests are used, then a performance test plan as specified in Subsection R315-265-1035(b)(3) and all test results.

(iv) Information as required by Subsections R315-265-1035(c)(1) and R315-265-1035(c)(2), as applicable.

(v) An owner or operator shall record, on a semiannual basis, the information specified in Subsections R315-265-1090(e)(1)(v)(A) and R315-265-1090(e)(1)(v)(B) for those planned routine maintenance operations that would require the control device not to meet the requirements of Subsections R315-265-1088(c)(1)(i), R315-265-1088(c)(1)(ii), or R315-265-1088(c)(1)(iii), as applicable.

(A) A description of the planned routine maintenance that is anticipated to be performed for the control device during the next 6-month period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

(B) A description of the planned routine maintenance that was performed for the control device during the previous 6-month period. This description shall include the type of maintenance performed and the total number of hours during those 6 months that the control device did not meet the requirements of Subsections R315-265-1088(c)(1)(i), R315-265-1088(c)(1)(ii), or R315-265-1088(c)(1)(iii), as applicable, due to planned routine maintenance.

(vi) An owner or operator shall record the information specified in Subsections R315-265-1090(e)(1)(vi)(A) through R315-265-1090(e)(1)(vi)(C) for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Subsections R315-265-1088(c)(1)(i), 315-265-1088(c)(1)(ii), or 315-265-1088(c)(1)(iii), as applicable.

(A) The occurrence and duration of each malfunction of the control device system.

(B) The duration of each period during a malfunction if gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the control device while the control device is not properly functioning.

(C) Actions taken during periods of malfunction to restore a malfunctioning control device to its normal or usual manner of operation.

(vii) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Subsection R315-265-1088(c)(3)(ii).

(f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Subsection R315-265-1083(c) shall prepare and maintain the following records, as applicable:

(1) For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in Subsections R315-265-1083(c)(1) or R315-265-1083(c)(2)(i) through R315-265-1090(c)(2)(vi), the owner or operator shall record the information used for each waste determination, for example, test results, measurements, calculations, and other documentation, in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator shall record the date, time, and location that each waste sample is collected in accordance with applicable requirements of Section R315-265-1084.

(2) For tanks, surface impoundments, or containers exempted under the provisions of Subsections R315-265-1083(c)(2)(vii) or R315-265-1083(c)(2)(viii), the owner or operator shall record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

(g) An owner or operator designating a cover as "unsafe to inspect and monitor" pursuant to Subsections R315-265-1085(l) or R315-265-1086(g) shall record in a log that is kept in the facility operating record the following information: The identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor," the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

(h) The owner or operator of a facility that is subject to Sections R315-265-1080 through R315-265-1090 and to the control device standards in 40 CFR part 60, subpart VV, or 40 CFR part 61, subpart V, may elect to demonstrate compliance with the applicable sections of Sections R315-265-1080 through R315-265-1090 by documentation either pursuant to Sections R315-265-1080 through R315-265-1090, or pursuant to the provisions of 40 CFR part 60, subpart VV or 40 CFR part 61, subpart V, to the extent that the documentation required by 40 CFR parts 60 or 61 duplicates the documentation required by Section R315-265-1090.

(i) For each tank or container not using air emission controls specified in Sections R315-265-1085 through R315-265-1088 in accordance with the conditions specified in Subsection R315-265-1080(d), the owner or operator shall record and maintain the following information:

(1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Subsection R315-265-1080(d)(1).

(2) A description of how the hazardous waste containing the organic peroxide compounds identified in Subsection R315-265-1090(i)(1) are managed at the facility in tanks and containers. This description shall include the following information:

(i) For the tanks used at the facility to manage this hazardous waste, sufficient information shall be provided to describe for each tank: A facility identification number for the tank; the purpose and placement of this tank in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste managed in the tanks.

(ii) For containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to describe: A facility identification number for the container or group of containers; the purpose and placement of this container, or group of containers, in the management train of this hazardous waste; and the procedures used to ultimately dispose of the hazardous waste handled in the containers.

(3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified in Subsection

R315-265-1090(i)(1) in the tanks and containers as described in Subsection R315-265-1090(i)(2) would create an undue safety hazard if the air emission controls, as required under Sections R315-265-1085 through R315-265-1088, are installed and operated on these waste management units. This explanation shall include the following information:

(i) For tanks used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain: How use of the required air emission controls on the tanks would affect the tank design features and facility operating procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the tanks; and why installation of safety devices on the required air emission controls, as allowed under this subpart, will not address those situations in which evacuation of tanks equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

(ii) For containers used at the facility to manage these hazardous wastes, sufficient information shall be provided to explain: How use of the required air emission controls on the containers would affect the container design features and handling procedures currently used to prevent an undue safety hazard during the management of this hazardous waste in the containers; and why installation of safety devices on the required air emission controls, as allowed under this subpart, will not address those situations in which evacuation of containers equipped with these air emission controls is necessary and consistent with good engineering and safety practices for handling organic peroxides.

(j) For each hazardous waste management unit not using air emission controls specified in Sections R315-265-1085 through R315-265-1088 in accordance with the provisions of Subsection R315-265-1080(b)(7), the owner and operator shall record and maintain the following information:

(1) Certification that the waste management unit is equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR part 60, part 61, or part 63.

(2) Identification of the specific requirements codified under 40 CFR part 60, part 61, or part 63 with which the waste management unit is in compliance.

R315-265-1100. Containment Buildings -- Applicability.

The requirements of Sections R315-265-1100 through R315-265-1102 apply to owners or operators who store or treat hazardous waste in units designed and operated under Section R315-265-1101. The owner or operator is not subject to the definition of land disposal in RCRA Section 3004(k) provided that the unit:

(a) is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the units, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed, climatic conditions, and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of that equipment with containment walls;

(b) has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel and handling equipment within the unit;

(c) if the unit is used to manage liquids, has:

(1) a primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

(2) a liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and

(3) a secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest possible time, unless the unit has been granted a variance from the secondary containment system requirements under Subsection R315-265-1101(b)(4);

(d) has controls as needed to prevent fugitive dust emissions; and

(e) is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.

R315-265-1101. Containment Buildings -- Design and Operating Standards.

(a) Each containment building shall comply with the following design standards.

(1) The containment building shall be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, for example, precipitation, wind, run-on, and to assure containment of managed wastes.

(2) The floor and containment walls of the unit, including the secondary containment system if required by Subsection R315-265-1101(b), shall be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed, climatic conditions, and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of that equipment with containment walls. The unit shall be designed so that it has sufficient structural strength to prevent collapse or other failure. Each surface to be in contact with hazardous wastes shall be chemically compatible with those wastes. The director will consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of Subsection R315-265-1101(a)(2). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

(i) they provide an effective barrier against fugitive dust emissions in accordance with Subsection R315-265-1101(c)(1)(iv); and

(ii) the unit is designed and operated in a fashion that assures that wastes will not contact these openings.

(3) Incompatible hazardous wastes or treatment reagents shall not be placed in the unit or its secondary containment system if

they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

(4) A containment building shall have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids, the presence of which is determined by the paint filter test, a visual examination, or other appropriate means, the owner or operator shall include.

(1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier, for example, a geomembrane covered by a concrete wear surface.

(2) A liquid collection and removal system to prevent the accumulation of liquid on the primary barrier of the containment building:

(i) the primary barrier shall be sloped to drain liquids to the associated collection system; and

(ii) liquids and waste shall be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time that protects human health and the environment.

(3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that can detect failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

(i) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum:

(A) constructed with a bottom slope of 1 % or more; and

(B) constructed of a granular drainage material with a hydraulic conductivity of 1×10^{-2} cm per sec or more and a thickness of 12 inches, 30.5 cm, or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} m^2 per sec or more.

(ii) If treatment is to be conducted in the building, an area in which treatment will be conducted shall be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

(iii) The secondary containment system shall be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. Containment buildings may serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building may serve as an external liner system for a tank, provided it meets the requirements of Subsection R315-265-193(e)(1). In addition, the containment building shall meet the requirements of Subsections R315-265-193 (b) and (c) to be considered an acceptable secondary containment system for a tank.

(4) For existing units other than 90-day generator units, the director may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of Sections R315-265-1100 through R315-265-1102. In making this demonstration, the owner or operator shall:

(i) provide written notice to the director of their request by February 18, 1993 that describes the unit and its operating practices with specific reference to the performance of existing containment systems, and specific plans for retrofitting the unit with secondary containment;

(ii) respond to any comments from the director on these plans within 30 days; and

(iii) fulfill the terms of the revised plans, if those plans are approved by the director.

(c) Owners or operators of containment buildings shall comply with the following.

(1) Use controls and practices to ensure containment of the hazardous waste within the unit, and, at a minimum:

(i) maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

(ii) maintain the level of the stored or treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

(iii) take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area shall be designated to decontaminate equipment and any rinsate shall be collected and properly managed; and

(iv) take measures to control fugitive dust emissions so that any openings, doors, windows, vents, cracks, exhibit no visible emissions. In addition, each associated particulate collection device, for example, fabric filter, electrostatic precipitator, shall be operated and maintained with sound air pollution control practices. This state of no visible emissions shall be maintained effectively at any time during normal operating conditions, including when vehicles and personnel are entering and exiting the unit.

(2) Obtain and keep on-site a certification by a qualified Professional Engineer that the containment building design meets the requirements of Subsections R315-265-1101(a), (b), and (c).

(3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, the owner or operator shall repair the condition promptly, in accordance with the following procedures.

(i) Upon detection of a condition that has led to a release of hazardous waste, for example, upon detection of leakage from the primary barrier, the owner or operator shall:

(A) enter a record of the discovery in the facility operating record;

(B) immediately remove the portion of the containment building affected by the condition from service;

(C) determine what steps shall be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

(D) within 7 days after the discovery of the condition, notify the director of the condition, and within 14 working days, provide a written notice to the director with a description of the steps taken to repair the containment building, and the schedule for accomplishing the

work.

(ii) The director will review the information submitted, make a determination regarding whether the containment building shall be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.

(iii) Upon completing the repairs and cleanup the owner or operator shall notify the director in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with Subsection R315-265-1101(c)(3)(i)(D).

(4) Inspect and record in the facility's operating record at least once each seven days data gathered from monitoring and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(d) For a containment building that contains both areas with and without secondary containment, the owner or operator shall:

(1) design and operate each area in accordance with the requirements enumerated in Subsections R315-265-1101(a) through (c);

(2) take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

(3) maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

(e) Notwithstanding any other provision of Sections R315-265-1100 through R315-265-1102, the director may waive requirements for secondary containment for a permitted containment building if the owner or operator demonstrates that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and if containment of managed wastes and liquids may be assured without a secondary containment system.

R315-265-1102. Containment Buildings -- Closure and Post-Closure Care.

(a) At closure of a containment building, the owner or operator shall remove or decontaminate any waste residues, contaminated containment system components, liners, contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless Subsection R315-261-3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings shall meet the requirements specified in Sections R315-265-110 through R315-265-120 and R315-265-140 through R315-265-148.

(b) If, after removing or decontaminating any residues and making reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-265-1102(a), the owner or operator finds that contaminated subsoils cannot be practicably removed or decontaminated, the owner or operator shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills, 40 CFR 265.310. In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator shall meet the requirements for landfills specified in Sections R315-265-110 through R315-265-120 and R315-265-140 through R315-265-148.

R315-265-1400. Appendix V to Rule R315-265 - Examples of Potentially Incompatible Waste.

Appendix V to 40 CFR Part 265, 2023 Edition, is incorporated by reference.

KEY: hazardous waste, TSD facilities, interim status
Date of Last Change: May 16, 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-266**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-266. Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments have been received since the last five-year review of this rule.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
Rule R315-266 establishes the minimum standards for the management of specific hazardous wastes and specific types of hazardous waste management facilities. These standards are required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.

Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.

Facilities.

R315-266-20. Recyclable Materials Used in a Manner Constituting Disposal -- Applicability.

(a) The regulations of Sections R315-266-20 through 23 apply to recyclable materials that are applied to or placed on the land:

(1) Without mixing with any other substance(s); or

(2) After mixing or combination with any other substance(s). These materials shall be referred to throughout Sections R315-266-20 through 23 as "materials used in a manner that constitutes disposal."

(b) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the products so as to become inseparable by physical means and if such products meet the applicable treatment standards in Sections R315-268-40 through 49, or applicable prohibition levels in Section R315-268-32 or RCRA section 3004(d), where no treatment standards have been established, for each recyclable material, i.e., hazardous waste, that they contain, and the recycler complies with Subsection R315-268-7(b)(6).

(c) Anti-skid/deicing uses of slags, which are generated from high temperature metals recovery (HTMR) processing of hazardous waste K061, K062, and F006, in a manner constituting disposal are not covered by the exemption in Subsection R315-266-20(b) and remain subject to regulation.

(d) Fertilizers that contain recyclable materials are not subject to regulation provided that:

(1) They are zinc fertilizers excluded from the definition of solid waste according to Subsection R315-261-4(a)(21); or

(2) They meet the applicable treatment standards in Sections R315-268-40 through 49 for each hazardous waste that they contain.

R315-266-21. Recyclable Materials Used in a Manner Constituting Disposal -- Standards Applicable to Generators and Transporters of Materials Used in a Manner That Constitutes Disposal.

Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of Rules R315-262 and 263, and the notification requirement under section 3010 of RCRA.

R315-266-22. Recyclable Materials Used in a Manner Constituting Disposal -- Standards Applicable to Storers of Materials That Are to Be Used in a Manner That Constitutes Disposal Who Are Not the Ultimate Users.

Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated under the applicable provisions of Sections R315-264-1 through R315-264-259; R315-265-1 through R315-265-260; and Rules R315-270 and R315-124 and the notification requirement under section 3010 of RCRA.

R315-266-23. Recyclable Materials Used in a Manner Constituting Disposal -- Standards Applicable to Users of Materials That Are Used in a Manner That Constitutes Disposal.

(a) Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of Rules R315-124, 264, 265, 268, and 270 and the notification requirement under section 3010 of RCRA. These requirements do not apply to products which contain these recyclable materials under the provisions of Subsection R315-266-20(b).

(b) The use of waste or used oil or other material, which is contaminated with dioxin or any other hazardous waste, other than a waste identified solely on the basis of ignitability, for dust suppression or road treatment is prohibited.

R315-266-70. Recyclable Materials Utilized for Precious Metal Recovery -- Applicability and Requirements.

(a) The regulations of Section R315-266-70 apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these.

(b) Persons who generate, transport, or store recyclable materials that are regulated under Section R315-266-70 are subject to the following requirements:

(1) Notification requirements under section 3010 of RCRA;

(2) Sections R315-262-20 through 262-27, for generators, Sections R315-263-20 and 263-21, for transporters; and Sections R315-265-71 and 265-72, for persons who store; and

(3) For precious metals exported to or imported from other countries for recovery, Sections R315-262-80 through 262-84 and Section R315-265-12.

(c) Persons who store recycled materials that are regulated under Section R315-266-70 shall keep the following records to document that they are not accumulating these materials speculatively, as defined in Subsection R315-261-1(c);

(1) Records showing the volume of these materials stored at the beginning of the calendar year;

(2) The amount of these materials generated or received during the calendar year; and

(3) The amount of materials remaining at the end of the calendar year.

(d) Recyclable materials that are regulated under Section R315-266-70 that are accumulated speculatively, as defined in Subsection R315-261-1(c), are subject to all applicable provisions of Rules R315-262 through 265, 270, and 124.

R315-266-80. Spent Lead-Acid Batteries Being Reclaimed -- Applicability and Requirements.

(a) Are spent lead-acid batteries exempt from hazardous waste management requirements? If you generate, collect, transport, store, or regenerate lead-acid batteries for reclamation purposes, you may be exempt from certain hazardous waste management requirements. Use Subsections R315-266-80(a)(1) through (7) to determine which requirements apply to you. Alternatively, you may choose to manage your spent lead-acid batteries under the "Universal Waste" rule in Rule R315-273.

(1) If your batteries will be reclaimed through regeneration, such as by electrolyte replacement, then you are exempt from Rules R315-262, except for Section R315-262-11; 263; 264; 265; 266; 268; 270; and 124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261 and Section R315-262-11.

(2) If your batteries will be reclaimed other than through regeneration and if you generate, collect, and/or transport these batteries then you are exempt from Rule R315-262, except for Section R315-262-11; 263; 264; 265; 266; 270; and 124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261 and Section R315-262-11, and applicable provisions under Rule R315-268.

(3) If your batteries will be reclaimed other than through regeneration and if you store these batteries but you aren't the reclaimer then you are exempt from Rule R315-262, except for Section R315-262-11; 263; 264; 265; 266; 270; and 124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261 and Section R315-262-11, and applicable provisions under Rule R315-268.

(4) If your batteries will be reclaimed other than through regeneration and if you store these batteries before you reclaim them then you shall comply with Subsection R315-266-80(b) and as appropriate other regulatory provisions described in Subsection R315-266-80(b) and you are subject to Rule R315-261 and Section R315-262-11, and applicable provisions under Rule R315-268.

(5) If your batteries will be reclaimed other than through regeneration and if you don't store these batteries before you reclaim them then you are exempt from Rule R315-262, except for Section R315-262-11; 263; 264; 265; 266; 270; and 124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261 and Section R315-262-11, and applicable provisions under Rule R315-268.

(6) If your batteries will be reclaimed through regeneration or any other means and if you export these batteries for reclamation in a foreign country then you are exempt from Rules R315-262, except for Sections R315-262-11, R315-262-18, and R315-262-80 through R315-262-84, R315-263, R315-264, R315-265, R315-266, R315-268, R315-270, R315-124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261, Sections R315-262-11 and R315-262-18, and Sections R315-262-80 through R315-262-84.

(7) If your batteries will be reclaimed through regeneration or any other means and if you transport these batteries in the U.S. to export them for reclamation in a foreign country then you are exempt from Rules R315-263, 264, 265, 266, 268, 270, 124, and the notification requirements at section 3010 of RCRA and you shall comply with applicable requirements in Sections R315-262-80 through R315-262-84.

(8) If your batteries will be reclaimed other than through regeneration and if you import these batteries from foreign country and store these batteries but you aren't the reclaimer then you are exempt from Rules R315-262, except for Sections R315-262-11, 262-18 and 262-80 through 262-84, Rules R315-263, R315-264, R315-265, R315-266, R315-270, R315-124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261, Sections R315-262-11, 262-18, and 262-80 through 262-84, and applicable provisions under Rule R315-268.

(9) If your batteries will be reclaimed other than through regeneration and if you import these batteries from foreign country and store these batteries before you reclaim them then you shall comply with Subsection R315-266-80(b) and as appropriate other regulatory provisions described in Subsection R315-266-80(b) and you are subject to Rule R315-261, Sections R315-262-11, 262-18, and 262-80 through 262-84, and applicable provisions under Rule R315-268.

(10) If your batteries will be reclaimed other than through regeneration and if you import these batteries from foreign country and don't store these batteries before you reclaim them then you are exempt from Rules R315-262, except for Sections 262-11, 262-18 and 262-80 through 262-84, Rules R315-263, R315-264, R315-265, R315-266, R315-270, and R315-124, and the notification requirements at section 3010 of RCRA and you are subject to Rule R315-261, Sections R315-262-11, 262-18, and 262-80 through 262-84, and applicable provisions under Rule R315-268.

(b) If I store spent lead-acid batteries before I reclaim them but not through regeneration, which requirements apply? The requirements of Subsection R315-266-80(b) apply to you if you store spent lead-acid batteries before you reclaim them, but you don't reclaim them through regeneration. The requirements are slightly different depending on your permit status.

(1) For Interim Status Facilities, you shall comply with:

(i) Notification requirements under section 3010 of RCRA.

(ii) All applicable provisions in Sections R315-265-1 through 265-4.

(iii) All applicable provisions in Sections R315-265-10 through 265-19, except Section R315-265-13, waste analysis.

(iv) All applicable provisions in Sections R315-265-30 through 265-56.

(v) All applicable provisions in Sections R315-265-70 through 265-77, except Sections R315-265-71 and 265-72, dealing with the use of the manifest and manifest discrepancies.

(vi) All applicable provisions in Sections R315-265-90 through 265-260.

(vii) All applicable provisions in Rules R315-270 and 124.

(2) For Permitted Facilities:

(i) Notification requirements under section 3010 of RCRA.

(ii) All applicable provisions in Sections R315-264-1 through 4.

(iii) All applicable provisions in Sections R315-264-10 through 19, but not Section R315-264-13, waste analysis.

(iv) All applicable provisions in Sections R315-264-30 through 56.

(v) All applicable provisions in Sections R315-264-70 through 77, but not Sections R315-264-71 or 72, dealing with the use of the manifest and manifest discrepancies.

(vi) All applicable provisions in Sections R315-264-90 through 259.

(vii) All applicable provisions in Rules R315-270 and 124.

R315-266-100. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Applicability.

(a) Sections R315-266-100 through R315-266-112 apply to hazardous waste burned or processed in a boiler or industrial furnace, as defined in Section R315-260-10, irrespective of the purpose of burning or processing, except as provided by Subsections R315-266-100(b), R315-266-100(c), R315-266-100(d), R315-266-100(g), and R315-266-100(h). In Sections R315-266-100 through R315-266-112, the term "burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient. The emissions standards of Sections R315-266-104, R315-266-105 through R315-266-107 apply to facilities operating under interim status or under a RCRA permit as specified in Sections R315-266-102 and R315-266-103.

(b) Integration of the MACT standards.

(1) Except as provided by Subsections R315-266-100(b)(2), R315-266-100(b)(3), and R315-266-100(b)(4), the standards of Rule R315-266 do not apply to a new hazardous waste boiler or industrial furnace unit that becomes subject to hazardous waste permit requirements after October 12, 2005, or no longer apply if an owner or operator of an existing hazardous waste boiler or industrial furnace unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of Subsection R307-214-2(39), which incorporates 40 CFR 63, subpart EEE, by conducting a comprehensive performance test and submitting to the director a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d),which are incorporated by Subsection R307-214-2(29), documenting compliance with the requirements of Subsection R307-214-2(29), which incorporates 40 CFR 63, subpart EEE. Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of Rule R315-266 shall continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

(2) The following standards continue to apply:

(i) If the owner or operator elects to comply with Subsection R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, Subsection R315-266-102(e)(1) requiring operations in accordance with the operating requirements specified in the permit at any time that hazardous waste is in the unit, and Subsection R315-266-102(e)(2)(iii) requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes. These provisions apply only during startup, shutdown, and malfunction events;

(ii) The closure requirements of Subsections R315-266-102(e)(11) and R315-266-103(l);

(iii) The standards for direct transfer of Section R315-266-111;

(iv) The standards for regulation of residues of Section R315-266-112; and

(v) The applicable requirements of Sections R315-264-1 through R315-264-151, R315-264-1050 through R315-264-1065 and R315-264-1080 through R315-264-1090 and R315-265-1 through R315-265-150, R315-265-1050 through R315-265-1064, and R315-265-1080 through R315-265-1090.

(3) If the owner or operator owns or operates a boiler or hydrochloric acid production furnace that is an area source under 40 CFR 63.2 and the owner or operators elects not to comply with the emission standards under 40 CFR 63.1216, 63.1217, and 63.1218 for particulate matter, semivolatile and low volatile metals, and total chlorine, the owner or operator also remains subject to:

(i) Section R315-266-105-Standards to control particulate matter;

(ii) Section R315-266-106-Standards to control metals emissions, except for mercury; and

(iii) Section R315-266-107-Standards to control hydrogen chloride and chlorine gas.

(4) The particulate matter standard of Section R315-266-105 remains in effect for boilers that elect to comply with the alternative to the particulate matter standard under 40 CFR 63.1216(e) and 63.1217(e).

(c) The following hazardous wastes and facilities are not subject to regulation under Sections R315-266-100 through R315-266-112:

(1) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in Sections R315-261-20 through R315-261-24. This used oil is subject to regulation under Rule R315-15;

(2) Gas recovered from hazardous or solid waste landfills if the gas is burned for energy recovery;

(3) Hazardous wastes that are exempt from regulation under Section R315-261-4 and Subsections R315-261-6(a)(3)(iii) and R315-261-6(a)(3)(iv), and hazardous wastes that are subject to the conditions for exemption for very small quantity generators under Section R315-262-14; and

(4) Coke ovens, if the only hazardous waste burned is EPA Hazardous Waste No. K087, decanter tank tar sludge from coking operations.

(d) Owners and operators of smelting, melting, and refining furnaces, including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, but not including cement kilns, aggregate kilns, or halogen acid furnaces burning hazardous waste, that process hazardous waste solely for metal recovery are conditionally exempt from regulation under Sections R315-266-100 through R315-266-112, except for Sections R315-266-101 and R315-266-112.

(1) To be exempt from Sections R315-266-102 through R315-266-111, an owner or operator of a metal recovery furnace or mercury recovery furnace shall comply with Subsections R315-266-100(d)(1)(i) through R315-266-100(d)(1)(iii), except that an owner or operator of a lead or a nickel-chromium recovery furnace, or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, shall comply with the requirements of Subsection R315-266-100(d)(3), and owners or operators of lead recovery furnaces that are subject to regulation under the Secondary Lead Smelting NESHAP shall comply with the requirements of Subsection R315-266-100(h).

(i) Provide a one-time written notice to the director indicating the following:

(A) The owner or operator claims exemption under Subsection R315-266-100(d);

(B) The hazardous waste is burned solely for metal recovery consistent with Subsection R315-266-100(d)(2);

(C) The hazardous waste contains recoverable levels of metals; and

(D) The owner or operator shall comply with the sampling and analysis and recordkeeping requirements of Subsection R315-266-100(d);

(ii) Sample and analyze the hazardous waste and other feedstocks as necessary to comply with the requirements of Subsection R315-266-100(d) by using appropriate methods; and

(iii) Maintain at the facility for at least three years records to document compliance with Subsection R315-266-100(d) including limits on levels of toxic organic constituents and Btu value of the waste, and levels of recoverable metals in the hazardous waste compared to normal non-hazardous waste feedstocks.

(2) A hazardous waste meeting either of the following criteria is not processed solely for metal recovery:

(i) The hazardous waste has a total concentration of organic compounds listed in Rule R315-261, appendix VIII, exceeding 500 ppm by weight, as-fired, and so is considered to be burned for destruction. The concentration of organic compounds in a waste as-generated may be reduced to the 500 ppm limit by bona fide treatment that removes or destroys organic constituents. Blending for dilution to meet the 500 ppm limit is prohibited and documentation that the waste has not been impermissibly diluted shall be kept in the records required by Subsection R315-266-100(d)(1)(iii); or

(ii) The hazardous waste has a heating value of 5,000 Btu/lb or more, as-fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. Blending for dilution to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly diluted shall be kept in the records required by Subsection R315-266-100(d)(1)(iii).

(3) To be exempt from Sections R315-266-102 through R315-266-111, an owner or operator of a lead or nickel-chromium or mercury recovery furnace, except for owners or operators of lead recovery furnaces subject to regulation under the Secondary Lead Smelting NESHAP, or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, shall provide a one-time written notice to the director identifying each hazardous waste burned and specifying whether the owner or operator claims an exemption for each waste under Subsection R315-266-100(d)(3) or R315-266-100(d)(1). The owners or operators shall comply with the requirements of Subsection R315-266-100(d)(1) for those wastes claimed to be exempt under Subsection R315-266-100(d)(1) and shall comply with the requirements in Subsections R315-266-100(d)(3)(i) through R315-266-100(d)(3)(ii) for those wastes claimed to be exempt under Subsection R315-266-100(d)(3).

(i) The hazardous wastes listed in appendices XI, XII, and XIII, of Rule R315-266, and baghouse bags used to capture metallic dusts emitted by steel manufacturing are exempt from the requirements of Subsection R315-266-100(d)(1), except that:

(A) a waste listed in appendix XI of Rule R315-266 shall contain recoverable levels of lead, a waste listed in appendix XII of Rule R315-266 shall contain recoverable levels of nickel or chromium, a waste listed in appendix XIII of Rule R315-266 shall contain recoverable levels of mercury and contain less than 500 ppm of Rule R315-261, appendix VIII organic constituents, and baghouse bags used to capture metallic dusts emitted by steel manufacturing shall contain recoverable levels of metal; and

(B) the waste does not exhibit the Toxicity Characteristic of Section R315-261-24 for an organic constituent; and

(C) the waste is not a hazardous waste listed in Sections R315-261-30 through R315-261-35 because it is listed for an organic constituent as identified in appendix VII of Rule R315-261; and

(D) The owner or operator certifies in the one-time notice that hazardous waste is burned under Subsection R315-266-100(d)(3) and that sampling and analysis will be conducted or other information will be collected as necessary to ensure continued compliance with these requirements. Sampling and analysis shall be conducted according to Subsection R315-266-100(d)(1)(ii) and records to document compliance with Subsection R315-266-100(d)(3) shall be kept for at least three years.

(ii) The director may decide on a case-by-case basis that the toxic organic constituents in a material listed in appendix XI, XII, or XIII of Rule R315-266 that contains a total concentration of more than 500 ppm toxic organic compounds listed in appendix VIII, of Rule R315-261, may pose a hazard to human health and the environment if burned in a metal recovery furnace exempt from the requirements of Sections R315-266-100 through R315-266-112. In that situation, after adequate notice and opportunity for comment, the metal recovery furnace shall become subject to the requirements of Sections R315-266-100 through R315-266-112 when burning that material. In making the hazard determination, the director shall consider the following factors:

(A) The concentration and toxicity of organic constituents in the material; and

(B) The level of destruction of toxic organic constituents provided by the furnace; and

(C) Whether the acceptable ambient levels established in appendices IV or V of Rule R315-266 may be exceeded for any toxic organic compound that may be emitted based on dispersion modeling to predict the maximum annual average off-site ground level concentration.

(e) The standards for direct transfer operations under Section R315-266-111 apply only to facilities subject to the permit standards of Section R315-266-102 or the interim status standards of Section R315-266-103.

(f) The management standards for residues under Section R315-266-112 apply to any boiler or industrial furnace burning hazardous waste.

(g) Owners and operators of smelting, melting, and refining furnaces, including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, that process hazardous waste for recovery of economically significant amounts of the precious metals gold, silver, platinum, palladium, iridium, osmium, rhodium, or ruthenium, or any combination of these are conditionally exempt from regulation under Sections R315-266-100 through R315-266-111. To be exempt from Sections R315-266-101 through R315-266-111, an owner or operator shall:

(1) provide a one-time written notice to the director indicating that:

(i) the owner or operator claims exemption under Subsection R315-266-100(g);

(ii) the hazardous waste is burned for legitimate recovery of precious metal; and

(iii) the owner or operator shall comply with the sampling and analysis and recordkeeping requirements of Subsection R315-266-100(g); and

(2) sample and analyze the hazardous waste as necessary to document that the waste contains economically significant amounts of the metals and that the treatment recovers economically significant amounts of precious metal; and

(3) maintain at the facility for at least three years records to document that the hazardous wastes burned are burned for recovery of economically significant amounts of precious metal.

(h) Starting June 23, 1997, owners or operators of lead recovery furnaces that process hazardous waste for recovery of lead and that are subject to regulation under the Secondary Lead Smelting NESHAP, are conditionally exempt from regulation under Sections R315-266-100 through R315-266-112, except for Section R315-266-101. To be exempt, an owner or operator shall provide a one-time notice to the director identifying each hazardous waste burned and specifying that the owner or operator claims an exemption under Subsection R315-266-100(h). The notice also shall state that the waste burned has a total concentration of non-metal compounds listed in Rule R315-261, appendix VIII, of less than 500 ppm by weight, as-fired and as provided in Subsection R315-266-100(d)(2)(i), or is listed in appendix XI to Rule R315-266.

R315-266-101. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Management Prior to Burning.

(a) Generators. Generators of hazardous waste that is burned in a boiler or industrial furnace are subject to Rule R315-262.

(b) Transporters. Transporters of hazardous waste that is burned in a boiler or industrial furnace are subject to Rule R315-263.

(c) Storage and treatment facilities.

(1) Owners and operators of facilities that store or treat hazardous waste that is burned in a boiler or industrial furnace are subject to the applicable provisions of Rules R315-264, 265 and 270, except as provided by Subsection R315-266-101(c)(2). These standards apply to storage and treatment by the burner as well as to storage and treatment facilities operated by intermediaries, processors, blenders, distributors, etc., between the generator and the burner.

(2) Owners and operators of facilities that burn, in an onsite boiler or industrial furnace exempt from regulation under the small quantity burner provisions of Section R315-266-108, hazardous waste that they generate are exempt from the regulations of Rules R315-264, 265 and 270 applicable to storage units for those storage units that store mixtures of hazardous waste and the primary fuel to the boiler or industrial furnace in tanks that feed the fuel mixture directly to the burner. Storage of hazardous waste prior to mixing with the primary fuel is subject to regulation as prescribed in Subsection R315-266-101(c)(1).

R315-266-102. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Permit Standards for Burners.

(a) Applicability.

(1) General. Owners and operators of boilers and industrial furnaces burning hazardous waste and not operating under interim status shall comply with the requirements of Section R315-266-102 and Sections R315-270-22 and R315-270-66, unless exempt under the small quantity burner exemption of Subsection R315-266-108.

(2) Applicability of Rule R315-264 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste are subject to the following sections of Rule R315-264, except as provided otherwise by Sections R315-266-100 through R315-266-112:

(i) Section R315-264-4, General;

(ii) Sections R315-264-11 through R315-264-18, General facility standards;

(iii) Sections R315-264-31 through R315-264-37, Preparedness and prevention;

(iv) Sections R315-264-51 through R315-264-56, Contingency plan and emergency procedures;

(v) Sections R315-264-71 through R315-264-77, Manifest system, recordkeeping, and reporting, as applicable;

(vi) Sections R315-264-90 and R315-264-101, Releases from Solid Waste Management Units;

(vii) Sections R315-264-111 through R315-264-115, Closure and post-closure;

(viii) Sections R315-264-141 through R315-264-143 and R315-264-147 through R315-264-151, Financial requirements; except that states and the federal government are exempt from the requirements of Sections R315-264-140 through R315-264-151; and

(ix) Sections R315-264-1050 through R315-264-1065, Air emission standards for equipment leaks, except Subsection R315-264-1050(a).

(b) Hazardous waste analysis.

(1) The owner or operator shall provide an analysis of the hazardous waste that quantifies the concentration of any constituent identified in appendix VIII of Rule R315-261 that may reasonably be expected to be in the waste. The constituents shall be identified and quantified if present, at levels detectable by using appropriate analytical procedures. The appendix VIII, Rule R315-261 constituents excluded from this analysis shall be identified and the basis for their exclusion explained. This analysis shall be used to provide the information required by Sections R315-266-100 through R315-266-112 and Sections R315-270-22 and R315-270-66 and to enable the permit writer to prescribe the permit conditions as necessary to protect human health and the environment. The analysis shall be included as a portion of the part B permit application, or, for facilities operating under the interim status standards of Sections R315-266-100 through R315-266-112, as a portion of the trial burn plan that may be submitted before the part B application under Subsection R315-270-66(g) as well as any other analysis required by the permit authority in preparing the permit. Owners and operators of boilers and industrial furnaces not operating under the interim status standards shall provide the information required by Section R315-270-22 or Subsection R315-270-66(c) in the part B application to the greatest extent possible.

(2) Throughout normal operation, the owner or operator shall conduct sampling and analysis as necessary to ensure that the

hazardous waste, other fuels, and industrial furnace feedstocks fired into the boiler or industrial furnace are within the physical and chemical composition limits specified in the permit.

(c) Emissions standards. Owners and operators shall comply with emissions standards provided by Subsections R315-266-104 through R315-266-107.

(d) Permits.

(1) The owner or operator may burn only hazardous wastes specified in the facility permit and only under the operating conditions specified under Subsection R315-266-102(e), except in approved trial burns under the conditions specified in Section R315-270-66.

(2) Hazardous wastes not specified in the permit may not be burned until operating conditions have been specified under a new permit or permit modification, as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with part B of a permit application under Section R315-270-22.

(3) Boilers and industrial furnaces operating under the interim status standards of Section R315-266-103 are permitted under procedures provided by Subsection R315-270-66(g).

(4) A permit for a new boiler or industrial furnace, those boilers and industrial furnaces not operating under the interim status standards, shall establish appropriate conditions for each of the applicable requirements of Section R315-266-102, including allowable hazardous waste firing rates and operating conditions necessary to meet the requirements of Subsection R315-266-102(e), to comply with the following standards:

(i) For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the device to a point of operational readiness to conduct a trial burn, not to exceed a duration of 720 hours operating time when burning hazardous waste, the operating requirements shall be those most likely to ensure compliance with the emission standards of Sections R315-266-104 through R315-266-107, based on the director's engineering judgment. If the applicant is seeking a waiver from a trial burn to demonstrate conformance with a particular emission standard, the operating requirements during this initial period of operation shall include those applicable requirements specified by Sections R315-266-104, R315-266-105, R315-266-106, or R315-266-107. The director may extend the duration of this period for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.

(ii) During the trial burn, the operating requirements shall be sufficient to demonstrate compliance with the emissions standards of Sections R315-266-104 through R315-266-107 and shall be in accordance with the approved trial burn plan.

(iii) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, submission of the trial burn results by the applicant, review of the trial burn results and modification of the facility permit by the director to reflect the trial burn results, the operating requirements shall be those most likely to ensure compliance with the emission standards Sections R315-266-104 through R315-266-107 based on the director's engineering judgment.

(iv) For the remaining duration of the permit, the operating requirements shall be those demonstrated in a trial burn or by alternative data specified in Section R315-270-22, as sufficient to ensure compliance with the emissions standards of Sections R315-266-104 through R315-266-107.

(e) Operating requirements.

(1) General. A boiler or industrial furnace burning hazardous waste shall be operated in accordance with the operating requirements specified in the permit at any time when there is hazardous waste in the unit.

(2) Requirements to ensure compliance with the organic emissions standards.

(i) DRE standard. Operating conditions shall be specified either on a case-by-case basis for each hazardous waste burned as those demonstrated, in a trial burn or by alternative data as specified in Section R315-270-22, to be sufficient to comply with the destruction and removal efficiency (DRE) performance standard of Subsection R315-266-104(a) or as those special operating requirements provided by Subsection R315-266-104(a)(4) for the waiver of the DRE trial burn. If the DRE trial burn is not waived under Subsection R315-266-104(a)(4), each set of operating requirements shall specify the composition of the hazardous waste, including acceptable variations in the physical and chemical properties of the hazardous waste that will not affect compliance with the DRE performance standard, to which the operating requirements apply. For each hazardous waste, the permit shall specify acceptable operating limits including the following conditions as appropriate:

(A) feed rate of hazardous waste and other fuels measured and specified as prescribed in Subsection R315-266-102(e)(6);

(B) minimum and maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(C) appropriate controls of the hazardous waste firing system;

(D) allowable variation in boiler and industrial furnace system design or operating procedures;

(E) minimum combustion gas temperature measured at a location indicative of combustion chamber temperature, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(F) an appropriate indicator of combustion gas velocity, measured and specified as prescribed in Subsection R315-266-102(e)(6), unless documentation is provided under Section R315-270-66 demonstrating adequate combustion gas residence time; and

(G) any other operating requirements as are necessary to ensure that the DRE performance standard of Subsection R315-266-104(a) is met.

(ii) Carbon monoxide and hydrocarbon standards. The permit shall incorporate a carbon monoxide (CO) limit and, as appropriate, a hydrocarbon (HC) limit as provided by Subsections R315-266-104(b), R315-266-104(c), R315-266-104(d), R315-266-104(e), and R315-266-104(f). The permit limits shall be specified as follows:

(A) If complying with the CO standard of Subsection R315-266-104(b)(1), the permit limit is 100 ppmv.

(B) If complying with the alternative CO standard under Subsection R315-266-104(c), the permit limit for CO is based on the trial burn and is established as the average over the valid runs of the highest hourly rolling average CO level of each run, and the permit limit for HC is 20 ppmv, as defined in Subsection R315-266-104(c)(1), except as provided in Subsection R315-266-104(f).

(C) If complying with the alternative HC limit for industrial furnaces under Subsection R315-266-104(f), the permit limit for HC and CO is the baseline level when hazardous waste is not burned as specified by Subsection R315-266-104(f).

(iii) Start-up and shut-down. During start-up and shut-down of the boiler or industrial furnace, hazardous waste, except waste fed solely as an ingredient under the Tier I, or adjusted Tier I, feed rate screening limits for metals and chloride or chlorine, and except low risk waste exempt from the trial burn requirements under Subsection R315-266-104(a)(5) and Sections R315-266-105 through R315-266-107, shall not be fed into the device unless the device is operating within the conditions of operation specified in the permit.

(3) Requirements to ensure conformance with the particulate standard.

(i) Except as provided in Subsections R315-266-102(e)(3)(ii) and R315-266-102(e)(3)(iii), the permit shall specify the following operating requirements to ensure conformance with the particulate standard specified in Section R315-266-105:

(A) total ash feed rate to the device from hazardous waste, other fuels, and industrial furnace feedstocks, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(B) maximum device production rate when producing normal product expressed in appropriate units, and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(C) appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(D) allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(E) any other operating requirements as are necessary to ensure that the particulate standard in Subsection R315-266-105(a) is met.

(ii) Permit conditions to ensure conformance with the particulate matter standard shall not be provided for facilities exempt from the particulate matter standard under Subsection R315-266-105(b).

(iii) For cement kilns and light-weight aggregate kilns, permit conditions to ensure compliance with the particulate standard shall not limit the ash content of hazardous waste or other feed materials.

(4) Requirements to ensure conformance with the metals emissions standard.

(i) For conformance with the Tier I, or adjusted Tier I, metals feed rate screening limits of Subsection R315-266-106(b) or R315-266-106(e), the permit shall specify the following operating requirements:

(A) total feed rate of each metal in hazardous waste, other fuels, and industrial furnace feedstocks measured and specified under Subsection R315-266-102(e)(6);

(B) total feed rate of hazardous waste measured and specified as prescribed in Subsection R315-266-102(e)(6); and

(C) a sampling and metals analysis program for the hazardous waste, other fuels, and industrial furnace feedstocks.

(ii) For conformance with the Tier II metals emission rate screening limits under Subsection R315-266-106(c) and the Tier III metals controls under Subsection R315-266-106(d), the permit shall specify the following operating requirements:

(A) maximum emission rate for each metal specified as the average emission rate during the trial burn;

(B) feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in Subsection R315-266-102(e)(6)(i);

(C) feed rate of each metal in the following feedstreams, measured and specified as prescribed in Subsection R315-266-102(e)(6):

(I) total feedstreams;

(II) total hazardous waste feed; and

(III) total pumpable hazardous waste feed;

(D) total feed rate of chlorine and chloride in total feedstreams measured and specified as prescribed in Subsection R315-266-102(e)(6);

(E) maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(F) maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in Subsection R315-266-102(e)(6);

(G) maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(H) appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(I) allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(J) any other operating requirements as are necessary to ensure that the metals standards under Subsection R315-266-106(c) or R315-266-106(d) are met.

(iii) For conformance with an alternative implementation approach approved by the director under Subsection R315-266-106(f), the permit shall specify the following operating requirements:

(A) maximum emission rate for each metal specified as the average emission rate during the trial burn;

(B) feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in

Subsection R315-266-102(e)(6)(i);

(C) feed rate of each metal in the following feedstreams, measured and specified as prescribed in Subsection R315-266-102(e)(6):

(I) total hazardous waste feed; and

(II) total pumpable hazardous waste feed;

(D) total feed rate of chlorine and chloride in total feedstreams measured and specified prescribed in Subsection R315-266-102(e)(6);

(E) maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(F) maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in Subsection R315-266-102(e)(6);

(G) maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in Subsection R315-266-102(e)(6);

(H) appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(I) allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(J) any other operating requirements as are necessary to ensure that the metals standards under Subsection R315-266-106(c) or R315-266-106(d) are met.

(5) Requirements to ensure conformance with the hydrogen chloride and chlorine gas standards.

(i) For conformance with the Tier I total chloride and chlorine feed rate screening limits of Subsection R315-266-107(b)(1), the permit shall specify the following operating requirements:

(A) feed rate of total chloride and chlorine in hazardous waste, other fuels, and industrial furnace feedstocks measured and specified as prescribed in Subsection R315-266-102(e)(6);

(B) feed rate of total hazardous waste measured and specified as prescribed in Subsection R315-266-102(e)(6); and

(C) a sampling and analysis program for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks.

(ii) For conformance with the Tier II HCl and Cl_2 emission rate screening limits under Subsection R315-266-107(b)(2) and the Tier III HCl and Cl_2 controls under Subsection R315-266-107(c), the permit shall specify the following operating requirements:

(A) maximum emission rate for HCl and for Cl_2 specified as the average emission rate during the trial burn;

(B) feed rate of total hazardous waste measured and specified as prescribed in Subsection R315-266-102(e)(6);

(C) total feed rate of chlorine and chloride in total feedstreams, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(D) maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in Subsection R315-266-102(e)(6);

(E) appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(F) allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(G) any other operating requirements as are necessary to ensure that the HCl and Cl_2 standards under Subsection R315-266-107 (b)(2) or R315-266-107(c) are met.

(6) Measuring parameters and establishing limits based on trial burn data.

(i) General requirements. As specified in Subsections R315-266-102(e)(2) through R315-266-102(e)(5), each operating parameter shall be measured, and permit limits on the parameter shall be established, according to either of the following procedures:

(A) Instantaneous limits. A parameter may be measured and recorded on an instantaneous basis, for example, the value that occurs at any time, and the permit limit specified as the time-weighted average during the valid runs of the trial burn.

(B) Hourly rolling average. The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(I) A continuous monitor is one that continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least each 60 seconds.

(II) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(III) The permit limit for the parameter shall be established based on trial burn data as the average over the valid test runs of the highest hourly rolling average value for each run.

(ii) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals, for example, arsenic, beryllium, cadmium and chromium, and lead may be established either on an hourly rolling average basis as prescribed by Subsection R315-266-102(e)(6)(i) or on, up to, a 24 hour rolling average basis. If the owner or operator elects to use an average period from 2 to 24 hours:

(A) the feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(B) the continuous monitor shall meet the following specifications:

(I) A continuous monitor is one that continuously samples the regulated parameter without interruption, and evaluates the

detector response at least once each 15 seconds, and computes and records the average value at least each 60 seconds.

(II) The rolling average for the selected averaging period is defined as the arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of the preceding clock hour; and

(C) the permit limit for the feed rate of each metal shall be established based on trial burn data as the average over the valid test runs of the highest hourly rolling average feed rate for each run.

(iii) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance, for example, metals, chloride or chlorine, and ash, in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream shall be monitored under the continuous monitoring requirements of Subsections R315-266-102(e)(6)(i) and R315-266-102(e)(6)(ii).

(iv) Conduct of trial burn testing.

(A) If compliance with the applicable emissions standards of Sections R315-266-104 through R315-266-107 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards shall be as close as possible to the original operating conditions.

(B) Before obtaining test data for purposes of demonstrating compliance with the emissions standards of Sections R315-266-104 through R315-266-107 or establishing limits on operating parameters under Section R315-266-102, the facility shall operate under trial burn conditions for a sufficient period to reach steady-state operations. The director may determine, however, that industrial furnaces that recycle collected particulate matter back into the furnace and that comply with an alternative implementation approach for metals under Subsection R315-266-106(f) need not reach steady-state conditions with respect to the flow of metals in the system before beginning compliance testing for metals emissions.

(C) Trial burn data on the level of an operating parameter for which a limit shall be established in the permit shall be obtained during emissions sampling for the pollutants, for example, metals, PM, HCl or Cl_2, organic compounds, for which the parameter shall be established as specified by Subsection R315-266-102(e).

(7) General requirements.

(i) Fugitive emissions. Fugitive emissions shall be controlled by:

(A) keeping the combustion zone totally sealed against fugitive emissions; or

(B) maintaining the combustion zone pressure lower than atmospheric pressure; or

(C) an alternate means of control demonstrated, with part B of the permit application, to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

(ii) Automatic waste feed cutoff. A boiler or industrial furnace shall be operated with a functioning system that automatically cuts off the hazardous waste feed when operating conditions deviate from those established under Section R315-266-102. The director may limit the number of cutoffs per an operating period on a case-by-case basis. In addition:

(A) the permit limit for, the indicator of, minimum combustion chamber temperature shall be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber;

(B) exhaust gases shall be ducted to the air pollution control system operated in accordance with the permit requirements while hazardous waste or hazardous waste residues remain in the combustion chamber; and

(C) operating parameters for which permit limits are established shall continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of those parameters comply with the permit limits. For parameters that may be monitored on an instantaneous basis, the director shall establish a minimum period after a waste feed cutoff during which the parameter shall not exceed the permit limit before the hazardous waste feed may be restarted.

(iii) Changes. A boiler or industrial furnace shall cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or industrial furnace feedstocks, or changes in the boiler or industrial furnace design or operating conditions deviate from the limits as specified in the permit.

(8) Monitoring and Inspections.

(i) The owner or operator shall monitor and record the following, at a minimum, while burning hazardous waste:

(A) If specified by the permit, feed rates and composition of hazardous waste, other fuels, and industrial furnace feedstocks, and feed rates of ash, metals, and total chloride and chlorine.

(B) If specified by the permit, carbon monoxide (CO), hydrocarbons (HC), and oxygen on a continuous basis at a common point in the boiler or industrial furnace downstream of the combustion zone and before release of stack gases to the atmosphere in accordance with operating requirements specified in Subsection R315-266-102(e)(2)(ii). CO, HC, and oxygen monitors shall be installed, operated, and maintained in accordance with methods specified in appendix IX of Rule R315-266.

(C) Upon the request of the director, sampling and analysis of the hazardous waste, and other fuels and industrial furnace feedstocks as appropriate, residues, and exhaust emissions shall be conducted to verify that the operating requirements established in the permit achieve the applicable standards of Sections R315-266-104 through R315-266-107.

(ii) Each monitor shall record data in units corresponding to the permit limit unless otherwise specified in the permit.

(iii) The boiler or industrial furnace and associated equipment, pumps, valves, pipes, fuel storage tanks, shall be subjected to thorough visual inspection when it contains hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

(iv) The automatic hazardous waste feed cutoff system and associated alarms shall be tested at least once each 7 days when hazardous waste is burned to verify operability, unless the applicant demonstrates to the director that weekly inspections will restrict or upset operations and that less frequent inspections will be adequate. At a minimum, operational testing shall be conducted at least once each 30 days.

(v) These monitoring and inspection data shall be recorded and the records shall be placed in the operating record required by Section R315-264-73.

(9) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit, the owner and operator shall comply with Section R315-266-111.

(10) Recordkeeping. The owner or operator shall maintain in the operating record of the facility the information and data required by Section R315-266-102 for five years.

(11) Closure. At closure, the owner or operator shall remove any hazardous waste and hazardous waste residues, including ash, scrubber waters, and scrubber sludges, from the boiler or industrial furnace.

R315-266-103. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Interim Status Standards for Burners.

(a) Purpose, scope, applicability

(1) General.

(i) The purpose of Section R315-266-103 is to establish minimum national standards for owners and operators of "existing" boilers and industrial furnaces that burn hazardous waste where such standards define the acceptable management of hazardous waste during the period of interim status. The standards of Section R315-266-103 apply to owners and operators of existing facilities until either a permit is issued under Section R315-266-102(d) or until closure responsibilities identified in Section R315-266-103 are fulfilled.

(ii) Existing or in existence means a boiler or industrial furnace that on or before August 21, 1991 is either in operation burning or processing hazardous waste or for which construction, including the ancillary facilities to burn or to process the hazardous waste, has commenced. A facility has commenced construction if the owner or operator has obtained the Federal, State, and local approvals or permits necessary to begin physical construction; and either:

(A) A continuous on-site, physical construction program has begun; or

(B) The owner or operator has entered into contractual obligations-which cannot be canceled or modified without substantial loss-for physical construction of the facility to be completed within a reasonable time.

(iii) If a boiler or industrial furnace is located at a facility that already has a permit or interim status, then the facility shall comply with the applicable regulations dealing with permit modifications in Section R315-270-42 or changes in interim status in Section R315-270-72.

(2) Exemptions. The requirements of Section R315-266-103 do not apply to hazardous waste and facilities exempt under Subsection R315-266-100(b), or Section R315-266-108.

(3) Prohibition on burning dioxin-listed wastes. The following hazardous waste listed for dioxin and hazardous waste derived from any of these wastes may not be burned in a boiler or industrial furnace operating under interim status: F020, F021, F022, F023, F026, and F027.

(4) Applicability of Rule R315-265 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste and are operating under interim status are subject to the following provisions of Rule R315-265, except as provided otherwise by Section R315-266-103:

(i) 40 CFR 265.4, which is adopted by reference, General;

(ii) 40 CFR 265.11 through 17, which are adopted by reference, General facility standards;

(iii) 40 CFR 265.31 through 37, which are adopted by reference, Preparedness and prevention;

(iv) 40 CFR 265.51 through 56, which are adopted by reference, Contingency plan and emergency procedures;

(v) 40 CFR 265.71 through 77, which are adopted by reference, Manifest system, recordkeeping, and reporting, except that 40 CFR 265.265.71, 72, and 76, which are incorporated by reference in Rule R315-265, do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources;

(vi) 40 CFR 265.111 through 115, which are adopted by reference, Closure and post-closure;

(vii) 40 CFR 265.141, 142, 143, and 147 through 150, which are adopted by reference, Financial requirements, except that States and the Federal government are exempt from the requirements of 40 CFR 265.140 through 150, which are adopted by reference; and

(viii) 40 CFR 265.1050 through 1064, which are adopted by reference, Air emission standards for equipment leaks, except 265-1050(a).

(5) Special requirements for furnaces. The following controls apply during interim status to industrial furnaces, e.g., kilns, cupolas, that feed hazardous waste for a purpose other than solely as an ingredient, see Subsection R315-266-103(a)(5)(ii), at any location other than the hot end where products are normally discharged or where fuels are normally fired:

(i) Controls.

(A) The hazardous waste shall be fed at a location where combustion gas temperatures are at least 1800 deg. F;

(B) The owner or operator shall determine that adequate oxygen is present in combustion gases to combust organic constituents in the waste and retain documentation of such determination in the facility record;

(C) For cement kiln systems, the hazardous waste shall be fed into the kiln; and

(D) The hydrocarbon controls of Subsections R315-266-104(c) or 103(c)(5) apply upon certification of compliance under Subsection R315-266-103(c) irrespective of the CO level achieved during the compliance test.

(ii) Burning hazardous waste solely as an ingredient. A hazardous waste is burned for a purpose other than solely as an ingredient if it meets either of these criteria:

(A) The hazardous waste has a total concentration of nonmetal compounds listed in Rule R315-261, appendix VIII, exceeding 500 ppm by weight, as-fired, and so is considered to be burned for destruction. The concentration of nonmetal compounds in a waste as-generated may be reduced to the 500 ppm limit by bona fide treatment that removes or destroys nonmetal constituents. Blending for dilution to meet the 500 ppm limit is prohibited and documentation that the waste has not been impermissibly diluted shall be retained in

the facility record; or

(B) The hazardous waste has a heating value of 5,000 Btu/lb or more, as-fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. Blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly blended shall be retained in the facility record.

(6) Restrictions on burning hazardous waste that is not a fuel. Prior to certification of compliance under Subsection R315-266-103(c), owners and operators shall not feed hazardous waste that has a heating value less than 5,000 Btu/lb, as-generated, except that the heating value of a waste as-generated may be increased to above the 5,000 Btu/lb limit by bona fide treatment; however, blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and records shall be kept to document that impermissible blending has not occurred, in a boiler or industrial furnace, except that:

(i) Hazardous waste may be burned solely as an ingredient; or

(ii) Hazardous waste may be burned for purposes of compliance testing, or testing prior to compliance testing, for a total period of time not to exceed 720 hours; or

(iii) Such waste may be burned if the Director has documentation to show that, prior to August 21, 1991:

(A) The boiler or industrial furnace is operating under the interim status standards for incinerators provided by 40 CFR 265.340 through 352, which are adopted by reference, or the interim status standards for thermal treatment units provided by 40 CFR 265.370 through 383, which are adopted by reference; and

(B) The boiler or industrial furnace met the interim status eligibility requirements under Section R315-270-70 for 40 CFR 265.340 through 383, which are adopted by reference; and

(C) Hazardous waste with a heating value less than 5,000 Btu/lb was burned prior to that date; or

(iv) Such waste may be burned in a halogen acid furnace if the waste was burned as an excluded ingredient under Section R315-261-2(e) prior to February 21, 1991 and documentation is kept on file supporting this claim.

(7) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit, the owner and operator shall comply with Section R315-266-111.

(b) Certification of precompliance

(1) General. The owner or operator shall provide complete and accurate information specified in Subsection R315-266-103(b)(2) to the Director on or before August 21, 1991, and shall establish limits for the operating parameters specified in Subsection R315-266-103(b)(3). Such information is termed a "certification of precompliance" and constitutes a certification that the owner or operator has determined that, when the facility is operated within the limits specified in Subsection R315-266-103(b)(3), the owner or operator believes that, using best engineering judgment, emissions of particulate matter, metals, and HCl and Cl_2 are not likely to exceed the limits provided by Sections R315-266-105 through 107. The facility may burn hazardous waste only under the operating conditions that the owner or operator establishes under Subsection R315-266-103(b)(3) until the owner or operator submits a revised certification of precompliance under Subsection R315-266-103(b)(8) or a certification of compliance under Subsection R315-266-103(c), or until a permit is issued.

(2) Information required. The following information shall be submitted with the certification of precompliance to support the determination that the limits established for the operating parameters identified in Subsection R315-266-103(b)(3) are not likely to result in an exceedance of the allowable emission rates for particulate matter, metals, and HCl and Cl_2.

(i) General facility information:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Description of boilers and industrial furnaces burning hazardous waste, including type and capacity of device;

(D) A scaled plot plan showing the entire facility and location of the boilers and industrial furnaces burning hazardous waste; and

(E) A description of the air pollution control system on each device burning hazardous waste, including the temperature of the flue gas at the inlet to the particulate matter control system.

(ii) Except for facilities complying with the Tier I or Adjusted Tier I feed rate screening limits for metals or total chlorine and chloride provided by Subsections R315-266-106(b) or (e) and 107(b)(1) or (e), respectively, the estimated uncontrolled, at the inlet to the air pollution control system, emissions of particulate matter, each metal controlled by Section R315-266-106, and hydrogen chloride and chlorine, and the following information to support such determinations:

(A) The feed rate (lb/hr) of ash, chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feedstream, hazardous waste, other fuels, industrial furnace feedstocks;

(B) The estimated partitioning factor to the combustion gas for the materials identified in Subsection R315-266-103(b)(2)(ii)(A) and the basis for the estimate and an estimate of the partitioning to HCl and Cl_2 of total chloride and chlorine in feed materials. To estimate the partitioning factor, the owner or operator shall use either best engineering judgment or the procedures specified in appendix IX of Rule R315-266.

(C) For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions standards under Subsection R315-266-103(c)(3)(ii)(A), the estimated enrichment factor for each metal. To estimate the enrichment factor, the owner or operator shall use either best engineering judgment or the procedures specified in "Alternative Methodology for Implementing Metals Controls" in appendix IX Rule R315-266.

(D) If best engineering judgment is used to estimate partitioning factors or enrichment factors under Subsections R315-266-103(b)(2)(ii)(B) or (b)(2)(ii)(C) respectively, the basis for the judgment. When best engineering judgment is used to develop or evaluate data or information and make determinations under Section R315-266-103, the determinations shall be made by a qualified, registered professional engineer and a certification of his/her determinations in accordance with Subsection R315-270-11(d) shall be provided in the certification of precompliance.

(iii) For facilities complying with the Tier I or Adjusted Tier I feed rate screening limits for metals or total chlorine and chloride provided by Subsections R315-266-106(b) or (e) and 107(b)(1) or (e), the feed rate (lb/hr) of total chloride and chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feed stream, hazardous waste, other fuels, industrial furnace feedstocks.

(iv) For facilities complying with the Tier II or Tier III emission limits for metals or HCl and Cl_2, under Subsections R315-266-106(c) or (d) or 107(b)(2) or (c), the estimated controlled, outlet of the air pollution control system, emissions rates of particulate matter, each metal controlled by Section R315-266-106, and HCl and Cl_2, and the following information to support such determinations:

(A) The estimated air pollution control system (APCS) removal efficiency for particulate matter, HCl, Cl_2, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium.

(B) To estimate APCS removal efficiency, the owner or operator shall use either best engineering judgment or the procedures prescribed in appendix IX of Rule R315-266.

(C) If best engineering judgment is used to estimate APCS removal efficiency, the basis for the judgment. Use of best engineering judgment shall be in conformance with provisions of Subsection R315-266-103(b)(2)(ii)(D).

(v) Determination of allowable emissions rates for HCl, Cl_2, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium, and the following information to support such determinations:

(A) For all facilities:

(I) Physical stack height;

(II) Good engineering practice stack height as defined by 40 CFR 51.100(ii);

(III) Maximum flue gas flow rate;

(IV) Maximum flue gas temperature;

(V) Attach a US Geological Service topographic map, or equivalent, showing the facility location and surrounding land within 5 km of the facility;

(VI) Identify terrain type: complex or noncomplex; and

(VII) Identify land use: urban or rural.

(B) For owners and operators using Tier III site specific dispersion modeling to determine allowable levels under Subsection R315-266-106(d) or 107(c), or adjusted Tier I feed rate screening limits under Subsections R315-266-106(e) or 107(e):

(I) Dispersion model and version used;

(II) Source of meteorological data;

(III) The dilution factor in micrograms per cubic meter per gram per second of emissions for the maximum annual average off-site, unless on-site is required, ground level concentration (MEI location); and

(IV) Indicate the MEI location on the map required under Subsection R315-266-103(b)(2)(v)(A)(5);

(vi) For facilities complying with the Tier II or III emissions rate controls for metals or HCl and Cl_2, a comparison of the estimated controlled emissions rates determined under Subsection R315-266-103(b)(2)(iv) with the allowable emission rates determined under Subsection R315-266-103(b)(2)(v);

(vii) For facilities complying with the Tier I, or adjusted Tier I, feed rate screening limits for metals or total chloride and chlorine, a comparison of actual feed rates of each metal and total chlorine and chloride determined under Subsection R315-266-103(b)(2)(iii) to the Tier I allowable feed rates; and

(viii) For industrial furnaces that feed hazardous waste for any purpose other than solely as an ingredient, as defined by Subsection R315-266-103(a)(5)(ii), at any location other than the product discharge end of the device, documentation of compliance with the requirements of Subsections R315-266-103(a)(5)(i)(A), (B), and (C).

(ix) For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions standards under Subsection R315-266-103(c)(3)(ii)(A):

(A) The applicable particulate matter standard in lb/hr; and

(B) The precompliance limit on the concentration of each metal in collected PM.

(3) Limits on operating conditions. The owner and operator shall establish limits on the following parameters consistent with the determinations made under Subsection R315-266-103(b)(2) and certify, under provisions of Subsection R315-266-103(b)(9), to the Director that the facility will operate within the limits during interim status when there is hazardous waste in the unit until revised certification of precompliance under Subsection R315-266-103(b)(8) or certification of compliance under Subsection R315-266-103(c):

(i) Feed rate of total hazardous waste and, unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e), pumpable hazardous waste;

(ii) Feed rate of each metal in the following feed streams:

(A) Total feed streams, except that industrial furnaces that comply with the alternative metals implementation approach under Subsection R315-266-103(b)(4) shall specify limits on the concentration of each metal in collected particulate matter in lieu of feed rate limits for total feedstreams;

(B) Total hazardous waste feed, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e); and

(C) Total pumpable hazardous waste feed, unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e);

(iii) Total feed rate of chlorine and chloride in total feed streams;

(iv) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited; and

(v) Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I

or Adjusted Tier I feed rate screening limits for chlorine under Subsections R315-266-107(b)(1) or (e) and for all metals under Subsections R315-266-106(b) or (e), and the uncontrolled particulate emissions do not exceed the standard under Subsection R315-266-105.

(4) Operating requirements for furnaces that recycle PM. Owners and operators of furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions controls under Subsection R315-266-103(c)(3)(ii)(A) shall comply with the special operating requirements provided in "Alternative Methodology for Implementing Metals Controls" in appendix IX of Rule R315-266.

(5) Measurement of feed rates and production rate

(i) General requirements. Limits on each of the parameters specified in Subsection R315-266-103(b)(3), except for limits on metals concentrations in collected particulate matter (PM) for industrial furnaces that recycle collected PM, shall be established and continuously monitored under either of the following methods:

(A) Instantaneous limits. A limit for a parameter may be established and continuously monitored and recorded on an instantaneous basis, i.e., the value that occurs at any time, not to be exceeded at any time; or

(B) Hourly rolling average limits. A limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(I) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(II) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(ii) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals, arsenic, beryllium, cadmium, and chromium, and lead may be established either on an hourly rolling average basis as prescribed by Subsection R315-266-103(b)(5)(i)(B) or on, up to, a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from 2 to 24 hours:

(A) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(B) The continuous monitor shall meet the following specifications:

(I) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(II) The rolling average for the selected averaging period is defined as the arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of preceding clock hour.

(iii) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance, i.e., metals, chloride/chlorine, and ash, in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream shall be monitored under the continuous monitoring requirements of Subsections R315-266-103(b)(5)(i) and (ii).

(6) Public notice requirements at precompliance. On or before August 21, 1991 the owner or operator shall submit a notice with the following information for publication in a major local newspaper of general circulation and send a copy of the notice to the appropriate units of State and local government. The owner and operator shall provide to the Director with the certification of precompliance evidence of submitting the notice for publication. The notice, which shall be entitled "Notice of Certification of Precompliance with Hazardous Waste Burning Requirements of Subsection R315-266-103(b)", shall include:

(i) Name and address of the owner and operator of the facility as well as the location of the device burning hazardous waste;

(ii) Date that the certification of precompliance is submitted to the Director;

(iii) Brief description of the regulatory process required to comply with the interim status requirements of Section R315-266-103 including required emissions testing to demonstrate conformance with emissions standards for organic compounds, particulate matter, metals, and HCl and Cl_2;

(iv) Types and quantities of hazardous waste burned including, but not limited to, source, whether solids or liquids, as well as an appropriate description of the waste;

(v) Type of device(s) in which the hazardous waste is burned including a physical description and maximum production rate of each device;

(vi) Types and quantities of other fuels and industrial furnace feedstocks fed to each unit;

(vii) Brief description of the basis for this certification of precompliance as specified in Subsection R315-266-103(b)(2);

(viii) Locations where the record for the facility can be viewed and copied by interested parties. These records and locations shall at a minimum include:

(A) The administrative record kept by the Agency office where the supporting documentation was submitted or another location designated by the Director; and

(B) The BIF correspondence file kept at the facility site where the device is located. The correspondence file shall include all correspondence between the facility and the Director and local regulatory officials, including copies of all certifications and notifications, such as the precompliance certification, precompliance public notice, notice of compliance testing, compliance test report, compliance certification, time extension requests and approvals or denials, enforcement notifications of violations, and copies of EPA and State site visit reports submitted to the owner or operator.

(ix) Notification of the establishment of a facility mailing list whereby interested parties shall notify the Director that they wish to be placed on the mailing list to receive future information and notices about this facility; and

(x) Location, mailing address, of the Division of Waste Management and Radiation Control, where further information can be obtained on regulation of hazardous waste burning.

(7) Monitoring other operating parameters. When the monitoring systems for the operating parameters listed in Subsections R315-266-103(c)(1)(v) through (xiii) are installed and operating in conformance with vendor specifications or, for CO, HC, and oxygen, specifications provided by appendix IX of Rule R315-266, as appropriate, the parameters shall be continuously monitored and records shall be maintained in the operating record.

(8) Revised certification of precompliance. The owner or operator may revise at any time the information and operating conditions documented under Subsections R315-266-103(b)(2) and (b)(3) in the certification of precompliance by submitting a revised certification of precompliance under procedures provided by Subsections R315-266-103(b)(2) and (b)(3).

(i) The public notice requirements of Subsection R315-266-103(b)(6) do not apply to recertifications.

(ii) The owner and operator shall operate the facility within the limits established for the operating parameters under Subsection R315-266-103(b)(3) until a revised certification is submitted under Subsection R315-266-103(b)(8) or a certification of compliance is submitted under Subsection R315-266-103(c).

(9) Certification of precompliance statement. The owner or operator shall include the following signed statement with the certification of precompliance submitted to the Director:

"I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of Subsection R315-266-103(b) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also acknowledge that the operating limits established in this certification pursuant to Subsections R315-266-103(b)(3) and (4) are enforceable limits at which the facility can legally operate during interim status until: (1) A revised certification of precompliance is submitted, (2) a certification of compliance is submitted, or (3) an operating permit is issued."

(c) Certification of compliance. The owner or operator shall conduct emissions testing to document compliance with the emissions standards of Subsections R315-266-104(b) through (e) and 103(a)(5)(i)(D) and Sections R315-266-105, 106, 107, and, under the procedures prescribed by Subsection R315-266-103(c), except under extensions of time provided by Subsection R315-266-103(c)(7). Based on the compliance test, the owner or operator shall submit to the Director on or before August 21, 1992 a complete and accurate "certification of compliance," under Subsection R315-266-103(c)(4), with those emission standards establishing limits on the operating parameters specified in Subsection R315-266-103(c)(1).

(1) Limits on operating conditions. The owner or operator shall establish limits on the following parameters based on operations during the compliance test, under procedures prescribed in Subsection R315-266-103(c)(4)(iv), or as otherwise specified and include these limits with the certification of compliance. The boiler or industrial furnace shall be operated in accordance with these operating limits and the applicable emissions standards of Subsections R315-266-104(b) through (e) and 103(a)(5)(i)(D) and Sections R315-266-105, 106, and 107, at all times when there is hazardous waste in the unit.

(i) Feed rate of total hazardous waste and, unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Subsection R315-266-106(b) or (e), pumpable hazardous waste;

(ii) Feed rate of each metal in the following feedstreams:

(A) Total feedstreams, except that:

(I) Facilities that comply with Tier I or Adjusted Tier I metals feed rate screening limits may set their operating limits at the metals feed rate screening limits determined under Subsections R315-266-106(b) or (e); and

(II) Industrial furnaces that shall comply with the alternative metals implementation approach under Subsection R315-266-103(c)(3)(ii) shall specify limits on the concentration of each metal in the collected particulate matter in lieu of feed rate limits for total feedstreams;

(B) Total hazardous waste feed, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e); and

(C) Total pumpable hazardous waste feed, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsection R315-266-106(b) or (e);

(iii) Total feed rate of chlorine and chloride in total feed streams, except that facilities that comply with Tier I or Adjusted Tier I feed rate screening limits may set their operating limits at the total chlorine and chloride feed rate screening limits determined under Subsections R315-266-107(b)(1) or (e);

(iv) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited;

(v) Carbon monoxide concentration, and where required, hydrocarbon concentration in stack gas. When complying with the CO controls of Subsection R315-266-104(b), the CO limit is 100 ppmv, and when complying with the HC controls of Subsection R315-266-104(c), the HC limit is 20 ppmv. When complying with the CO controls of Subsection R315-266-104(c), the CO limit is established based on the compliance test;

(vi) Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I or Adjusted Tier I feed rate screening limits for chlorine under Subsections R315-266-107(b)(1) or (e) and for all metals under Subsections R315-266-106(b) or (e), and the uncontrolled particulate emissions do not exceed the standard under Section R315-266-105;

(vii) Maximum combustion chamber temperature where the temperature measurement is as close to the combustion zone as possible and is upstream of any quench water injection, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e);

(viii) Maximum flue gas temperature entering a particulate matter control device, unless complying with Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b) or (e);

(ix) For systems using wet scrubbers, including wet ionizing scrubbers, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e):

(A) Minimum liquid to flue gas ratio;

(B) Minimum scrubber blowdown from the system or maximum suspended solids content of scrubber water; and

(C) Minimum pH level of the scrubber water;

(x) For systems using venturi scrubbers, the minimum differential gas pressure across the venture, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e);

(xi) For systems using dry scrubbers, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e):

(A) Minimum caustic feed rate; and

(B) Maximum flue gas flow rate;

(xii) For systems using wet ionizing scrubbers or electrostatic precipitators, unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e):

(A) Minimum electrical power in kilovolt amperes (kVA) to the precipitator plates; and

(B) Maximum flue gas flow rate;

(xiii) For systems using fabric filters (baghouses), the minimum pressure drop, unless complying with the Tier I or Adjusted Tier I metal feed rate screening limits under Subsections R315-266-106(b) or (e) and the total chlorine and chloride feed rate screening limits under Subsections R315-266-107(b)(1) or (e).

(2) Prior notice of compliance testing. At least 30 days prior to the compliance testing required by Subsection R315-266-103(c)(3), the owner or operator shall notify the Director and submit the following information:

(i) General facility information including:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Person responsible for conducting compliance test, including company name, address, and telephone number, and a statement of qualifications;

(D) Planned date of the compliance test;

(ii) Specific information on each device to be tested including:

(A) Description of boiler or industrial furnace;

(B) A scaled plot plan showing the entire facility and location of the boiler or industrial furnace;

(C) A description of the air pollution control system;

(D) Identification of the continuous emission monitors that are installed, including:

(I) Carbon monoxide monitor;

(II) Oxygen monitor;

(III) Hydrocarbon monitor, specifying the minimum temperature of the system and, if the temperature is less than 150 °C, an explanation of why a heated system is not used, see Subsection R315-266-103(c)(5), and a brief description of the sample gas conditioning system;

(E) Indication of whether the stack is shared with another device that will be in operation during the compliance test;

(F) Other information useful to an understanding of the system design or operation.

(iii) Information on the testing planned, including a complete copy of the test protocol and Quality Assurance/Quality Control (QA/QC) plan, and a summary description for each test providing the following information at a minimum:

(A) Purpose of the test, e.g., demonstrate compliance with emissions of particulate matter; and

(B) Planned operating conditions, including levels for each pertinent parameter specified in Subsection R315-266-103(c)(1).

(3) Compliance testing

(i) General. Compliance testing shall be conducted under conditions for which the owner or operator has submitted a certification of precompliance under Subsection R315-266-103(b) and under conditions established in the notification of compliance testing required by Subsection R315-266-103(c)(2). The owner or operator may seek approval on a case-by-case basis to use compliance test data from one unit in lieu of testing a similar onsite unit. To support the request, the owner or operator shall provide a comparison of the hazardous waste burned and other feedstreams, and the design, operation, and maintenance of both the tested unit and the similar unit. The Director shall provide a written approval to use compliance test data in lieu of testing a similar unit if he finds that the hazardous wastes, the devices, and the operating conditions are sufficiently similar, and the data from the other compliance test is adequate to meet the requirements of Subsection R315-266-103(c).

(ii) Special requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace particulate matter (PM) from the air pollution control system shall comply with one of the following procedures for testing to determine compliance with the metals standards of Subsections R315-266-106(c) or (d):

(A) The special testing requirements prescribed in "Alternative Method for Implementing Metals Controls" in appendix IX of

Rule R315-266; or

(B) Stack emissions testing for a minimum of 6 hours each day while hazardous waste is burned during interim status. The testing shall be conducted when burning normal hazardous waste for that day at normal feed rates for that day and when the air pollution control system is operated under normal conditions. During interim status, hazardous waste analysis for metals content shall be sufficient for the owner or operator to determine if changes in metals content may affect the ability of the facility to meet the metals emissions standards established under Subsections R315-266-106(c) or (d). Under this option, operating limits, under Subsection R315-266-103(c)(1), shall be established during compliance testing under Subsection R315-266-103(c)(3) only on the following parameters;

(I) Feed rate of total hazardous waste;

(II) Total feed rate of chlorine and chloride in total feed streams;

(III) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited;

(IV) Carbon monoxide concentration, and where required, hydrocarbon concentration in stack gas;

(V) Maximum production rate of the device in appropriate units when producing normal product; or

(C) Conduct compliance testing to determine compliance with the metals standards to establish limits on the operating parameters of Subsection R315-266-103(c)(1) only after the kiln system has been conditioned to enable it to reach equilibrium with respect to metals fed into the system and metals emissions. During conditioning, hazardous waste and raw materials having the same metals content as will be fed during the compliance test shall be fed at the feed rates that will be fed during the compliance test.

(iii) Conduct of compliance testing.

(A) If compliance with all applicable emissions standards of Sections R315-266-104 through 107 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards shall be as close as possible to the original operating conditions.

(B) Prior to obtaining test data for purposes of demonstrating compliance with the applicable emissions standards of Sections R315-266-104 through 107 or establishing limits on operating parameters under Section R315-266-103, the facility shall operate under compliance test conditions for a sufficient period to reach steady-state operations. Industrial furnaces that recycle collected particulate matter back into the furnace and that comply with Subsections R315-266-103(c)(3)(ii)(A) or (B), however, need not reach steady state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals.

(C) Compliance test data on the level of an operating parameter for which a limit shall be established in the certification of compliance shall be obtained during emissions sampling for the pollutant(s), i.e., metals, PM, HCl/Cl2, organic compounds, for which the parameter shall be established as specified by Subsection R315-266-103(c)(1).

(4) Certification of compliance. Within 90 days of completing compliance testing, the owner or operator shall certify to the Director compliance with the emissions standards of Subsections R315-266-104 (b), (c), and (e), and Sections R315-266-105, 106, and 107, and Subsection R315-266-103(a)(5)(i)(D). The certification of compliance shall include the following information:

(i) General facility and testing information including:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Person responsible for conducting compliance testing, including company name, address, and telephone number, and a statement of qualifications;

(D) Date(s) of each compliance test;

(E) Description of boiler or industrial furnace tested;

(F) Person responsible for quality assurance/quality control (QA/QC), title, and telephone number, and statement that procedures prescribed in the QA/QC plan submitted under Subsection R315-266-103(c)(2)(iii) have been followed, or a description of any changes and an explanation of why changes were necessary.

(G) Description of any changes in the unit configuration prior to or during testing that would alter any of the information submitted in the prior notice of compliance testing under Subsection R315-266-103(c)(2), and an explanation of why the changes were necessary;

(H) Description of any changes in the planned test conditions prior to or during the testing that alter any of the information submitted in the prior notice of compliance testing under Subsection R315-266-103(c)(2), and an explanation of why the changes were necessary; and

(I) The complete report on results of emissions testing.

(ii) Specific information on each test including:

(A) Purpose(s) of test, e.g., demonstrate conformance with the emissions limits for particulate matter, metals, HCl, Cl_2, and CO;

(B) Summary of test results for each run and for each test including the following information:

(I) Date of run;

(II) Duration of run;

(III) Time-weighted average and highest hourly rolling average CO level for each run and for the test;

(IV) Highest hourly rolling average HC level, if HC monitoring is required for each run and for the test;

(V) If dioxin and furan testing is required under Subsection R315-266-104(e), time-weighted average emissions for each run and for the test of chlorinated dioxin and furan emissions, and the predicted maximum annual average ground level concentration of the toxicity equivalency factor;

(VI) Time-weighted average particulate matter emissions for each run and for the test;

(VII) Time-weighted average HCl and Cl2 emissions for each run and for the test;

(VIII) Time-weighted average emissions for the metals subject to regulation under Subsection R315-266-106 for each run and for

the test; and

(IX) QA/QC results.

(iii) Comparison of the actual emissions during each test with the emissions limits prescribed by Subsections R315-266-104(b), (c), and (e), and Sections R315-266-105, through 107 and established for the facility in the certification of precompliance under Subsection R315-266-103(b).

(iv) Determination of operating limits based on all valid runs of the compliance test for each applicable parameter listed in Subsection R315-266-103(c)(1) using either of the following procedures:

(A) Instantaneous limits. A parameter may be measured and recorded on an instantaneous basis, i.e., the value that occurs at any time, and the operating limit specified as the time-weighted average during all runs of the compliance test; or

(B) Hourly rolling average basis. The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(I) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds; and

(II) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(III) The operating limit for the parameter shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average value for each run.

(C) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals, i.e., arsenic, beryllium, cadmium and chromium, and lead may be established either on an hourly rolling average basis as prescribed by Subsection R315-266-103(c)(4)(iv)(B) or on,up to, a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from 2 to 24 hours:

(I) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(II) The continuous monitor shall meet the following specifications:

(i) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(ii) The rolling average for the selected averaging period is defined as arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of preceding clock hour; and

(III) The operating limit for the feed rate of each metal shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average feed rate for each run.

(D) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance, i.e., metals, chloride/chlorine, and ash, in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream shall be monitored under the continuous monitoring requirements of Subsections R315-266-103(c)(4)(iv)(A) through (C).

(v) Certification of compliance statement. The following statement shall accompany the certification of compliance:

"I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of Subsection R315-266-103(c) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also acknowledge that the operating conditions established in this certification pursuant to Subsection R315-266-103(c)(4)(iv) are enforceable limits at which the facility can legally operate during interim status until a revised certification of compliance is submitted."

(5) Special requirements for HC monitoring systems. When an owner or operator is required to comply with the hydrocarbon (HC) controls provided by Subsections R315-266-104(c) or 103(a)(5)(i)(D), a conditioned gas monitoring system may be used in conformance with specifications provided in appendix IX of Rule R315-266 provided that the owner or operator submits a certification of compliance without using extensions of time provided by Subsection R315-266-103(c)(7).

(6) Special operating requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace particulate matter (PM) from the air pollution control system shall:

(i) When complying with the requirements of Subsection R315-266-103(c)(3)(ii)(A), comply with the operating requirements prescribed in "Alternative Method to Implement the Metals Controls" in appendix IX of Rule R315-266; and

(ii) When complying with the requirements of Subsection R315-266-103(c)(3)(ii)(B), comply with the operating requirements prescribed by Subsection R315-266-103(c).

(7) Extensions of time.

(i) If the owner or operator does not submit a complete certification of compliance for all of the applicable emissions standards of Sections R315-266-104, through 107 by August 21, 1992, he/she shall either:

(A) Stop burning hazardous waste and begin closure activities under Subsection R315-266-103(l) for the hazardous waste portion of the facility; or

(B) Limit hazardous waste burning only for purposes of compliance testing, and pretesting to prepare for compliance testing, a total period of 720 hours for the period of time beginning August 21, 1992, submit a notification to the Director by August 21, 1992 stating that the facility is operating under restricted interim status and intends to resume burning hazardous waste, and submit a complete

certification of compliance by August 23, 1993; or

(C) Obtain a case-by-case extension of time under Subsection R315-266-103(c)(7)(ii).

(ii) The owner or operator may request a case-by-case extension of time to extend any time limit provided by Subsection R315-266-103(c) if compliance with the time limit is not practicable for reasons beyond the control of the owner or operator.

(A) In granting an extension, the Director may apply conditions as the facts warrant to ensure timely compliance with the requirements of Section R315-266-103 and that the facility operates in a manner that does not pose a hazard to human health and the environment;

(B) When an owner or operator requests an extension of time to enable the facility to comply with the alternative hydrocarbon provisions of Subsection R315-266-104(f) and obtain a RCRA operating permit because the facility cannot meet the HC limit of Subsection R315-266-104(c):

(1) The Director shall, in considering whether to grant the extension:

(i) Determine whether the owner and operator have submitted in a timely manner a complete part B permit application that includes information required under Subsection R315-270-22(b); and

(ii) Consider whether the owner and operator have made a good faith effort to certify compliance with all other emission controls, including the controls on dioxins and furans of Subsection R315-266-104(e) and the controls on PM, metals, and HCl/Cl_2.

(2) If an extension is granted, the Director shall, as a condition of the extension, require the facility to operate under flue gas concentration limits on CO and HC that, based on available information, including information in the part B permit application, are baseline CO and HC levels as defined by Subsection R315-266-104(f)(1).

(8) Revised certification of compliance. The owner or operator may submit at any time a revised certification of compliance, recertification of compliance, under the following procedures:

(i) Prior to submittal of a revised certification of compliance, hazardous waste may not be burned for more than a total of 720 hours under operating conditions that exceed those established under a current certification of compliance, and such burning may be conducted only for purposes of determining whether the facility can operate under revised conditions and continue to meet the applicable emissions standards of Sections R315-266-104 through 107;

(ii) At least 30 days prior to first burning hazardous waste under operating conditions that exceed those established under a current certification of compliance, the owner or operator shall notify the Director and submit the following information:

(A) EPA facility ID number, and facility name, contact person, telephone number, and address;

(B) Operating conditions that the owner or operator is seeking to revise and description of the changes in facility design or operation that prompted the need to seek to revise the operating conditions;

(C) A determination that when operating under the revised operating conditions, the applicable emissions standards of Sections R315-266-104 through 107 are not likely to be exceeded. To document this determination, the owner or operator shall submit the applicable information required under Subsection R315-266-103(b)(2); and

(D) Complete emissions testing protocol for any pretesting and for a new compliance test to determine compliance with the applicable emissions standards of Sections R315-266-104 through 107 when operating under revised operating conditions. The protocol shall include a schedule of pre-testing and compliance testing. If the owner and operator revises the scheduled date for the compliance test, he/she shall notify the Director in writing at least 30 days prior to the revised date of the compliance test;

(iii) Conduct a compliance test under the revised operating conditions and the protocol submitted to the Director to determine compliance with the applicable emissions standards of Sections R315-266-104 through 107; and

(iv) Submit a revised certification of compliance under Subsection R315-266-103(c)(4).

(d) Periodic Recertifications. The owner or operator shall conduct compliance testing and submit to the Director a recertification of compliance under provisions of Subsection R315-266-103(c) within five years from submitting the previous certification or recertification. If the owner or operator seeks to recertify compliance under new operating conditions, he/she shall comply with the requirements of Subsection R315-266-103(c)(8).

(e) Noncompliance with certification schedule. If the owner or operator does not comply with the interim status compliance schedule provided by Subsections R315-266-103(b), (c), and (d), hazardous waste burning shall terminate on the date that the deadline is missed, closure activities shall begin under Subsection R315-266-103(l), and hazardous waste burning may not resume except under an operating permit issued under Section R315-270-66. For purposes of compliance with the closure provisions of Subsection R315-266-103(l) and 40 CFR 265.112(d)(2) and 113, which are adopted by reference, the boiler or industrial furnace has received "the known final volume of hazardous waste" on the date that the deadline is missed.

(f) Start-up and shut-down. Hazardous waste, except waste fed solely as an ingredient under the Tier I, or adjusted Tier I, feed rate screening limits for metals and chloride/chlorine, shall not be fed into the device during start-up and shut-down of the boiler or industrial furnace, unless the device is operating within the conditions of operation specified in the certification of compliance.

(g) Automatic waste feed cutoff. During the compliance test required by Subsection R315-266-103(c)(3), and upon certification of compliance under Subsection R315-266-103(c), a boiler or industrial furnace shall be operated with a functioning system that automatically cuts off the hazardous waste feed when the applicable operating conditions specified in Subsections R315-266-103(c)(1)(i) and (v) through (xiii) deviate from those established in the certification of compliance. In addition:

(1) To minimize emissions of organic compounds, the minimum combustion chamber temperature, or the indicator of combustion chamber temperature, that occurred during the compliance test shall be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber, with the minimum temperature during the compliance test defined as either:

(i) If compliance with the combustion chamber temperature limit is based on an hourly rolling average, the minimum temperature during the compliance test is considered to be the average over all runs of the lowest hourly rolling average for each run; or

(ii) If compliance with the combustion chamber temperature limit is based on an instantaneous temperature measurement, the

minimum temperature during the compliance test is considered to be the time-weighted average temperature during all runs of the test; and

(2) Operating parameters limited by the certification of compliance shall continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of those parameters comply with the limits established in the certification of compliance.

(h) Fugitive emissions. Fugitive emissions shall be controlled by:

(1) Keeping the combustion zone totally sealed against fugitive emissions; or

(2) Maintaining the combustion zone pressure lower than atmospheric pressure; or

(3) An alternate means of control that the owner or operator can demonstrate provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure. Support for such demonstration shall be included in the operating record.

(i) Changes. A boiler or industrial furnace shall cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or industrial furnace feedstocks, or changes in the boiler or industrial furnace design or operating conditions deviate from the limits specified in the certification of compliance.

(j) Monitoring and Inspections.

(1) The owner or operator shall monitor and record the following, at a minimum, while burning hazardous waste:

(i) Feed rates and composition of hazardous waste, other fuels, and industrial furnace feed stocks, and feed rates of ash, metals, and total chloride and chlorine as necessary to ensure conformance with the certification of precompliance or certification of compliance;

(ii) Carbon monoxide (CO), oxygen, and if applicable, hydrocarbons (HC), on a continuous basis at a common point in the boiler or industrial furnace downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with the operating limits specified in the certification of compliance. CO, HC, and oxygen monitors shall be installed, operated, and maintained in accordance with methods specified in appendix IX of Rule R315-266.

(iii) Upon the request of the Director, sampling and analysis of the hazardous waste, and other fuels and industrial furnace feed stocks as appropriate, and the stack gas emissions shall be conducted to verify that the operating conditions established in the certification of precompliance or certification of compliance achieve the applicable standards of Sections R315-266-104 through 107.

(2) The boiler or industrial furnace and associated equipment, pumps, valves, pipes, fuel storage tanks, etc., shall be subjected to thorough visual inspection when they contain hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

(3) The automatic hazardous waste feed cutoff system and associated alarms shall be tested at least once every 7 days when hazardous waste is burned to verify operability, unless the owner or operator can demonstrate that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. Support for such demonstration shall be included in the operating record. At a minimum, operational testing shall be conducted at least once every 30 days.

(4) These monitoring and inspection data shall be recorded and the records shall be placed in the operating log.

(k) Recordkeeping. The owner or operator shall keep in the operating record of the facility all information and data required by Section R315-266-103 for five years.

(l) Closure. At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues, including, but not limited to, ash, scrubber waters, and scrubber sludges, from the boiler or industrial furnace and shall comply with 40 CFR 265.111 through 115, which are adopted by reference.

R315-266-104. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Standards to Control Organic Emissions.

(a) DRE standard

(1) General. Except as provided in Subsection R315-266-104(a)(3), a boiler or industrial furnace burning hazardous waste shall achieve a destruction and removal efficiency (DRE) of 99.99% for any organic hazardous constituents in the waste feed. To demonstrate conformance with this requirement, 99.99% DRE shall be demonstrated during a trial burn for each principal organic hazardous constituent (POHC) designated, under Subsection R315-266-104(a)(2), in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$DRE = (1-W_{out}/W_{in})X100$

where:

W_{in} = Mass feed rate of one principal organic hazardous constituent (POHC) in the hazardous waste fired to the boiler or industrial furnace; and

W_{out} = Mass emission rate of the POHC present in stack gas before release to the atmosphere.

(2) Designation of POHCs. Principal organic hazardous constituents (POHCs) are those compounds for which compliance with the DRE requirements of Section R315-266-104 shall be demonstrated in a trial burn in conformance with procedures prescribed in Section R315-270-66. One or more POHCs shall be designated by the director for each waste feed to be burned. POHCs shall be designated based on the degree of difficulty of destruction of the organic constituents in the waste and on their concentrations or mass in the waste feed considering the results of waste analyses submitted with part B of the permit application. POHCs are most likely to be selected from among those compounds listed in Rule R315-261, appendix VIII that are also present in the normal waste feed. However, if the applicant demonstrates to the director's satisfaction that a compound not listed in Rule R315-261, appendix VIII or not present in the normal waste feed is a suitable indicator of compliance with the DRE requirements of Section R315-266-104, that compound may be designated as a POHC. These POHCs need not be toxic or organic compounds.

(3) Dioxin-listed waste. A boiler or industrial furnace burning hazardous waste containing, or derived from, EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, or F027 shall achieve a destruction and removal efficiency (DRE) of 99.9999% for each POHC designated, under Subsection R315-266-104(a)(2), in its permit. This performance shall be demonstrated on POHCs that are more difficult to burn than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC

from the equation in Subsection R315-266-104(a)(1). In addition, the owner or operator of the boiler or industrial furnace shall notify the director of intent to burn EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(4) Automatic waiver of DRE trial burn. Owners and operators of boilers operated under the special operating requirements provided by Section R315-266-110 are considered to be in compliance with the DRE standard of Subsection R315-266-104(a)(1) and are exempt from the DRE trial burn.

(5) Low risk waste. Owners and operators of boilers or industrial furnaces that burn hazardous waste in compliance with the requirements of Subsection R315-266-109(a) are considered to be in compliance with the DRE standard of Subsection R315-266-104(a)(1) and are exempt from the DRE trial burn.

(b) Carbon monoxide standard.

(1) Except as provided in Subsection R315-266-104(c), the stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste cannot exceed 100 ppmv on an hourly rolling average basis, that is, over any 60 minute period, continuously corrected to 7% oxygen, dry gas basis.

(2) CO and oxygen shall be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in appendix IX of Rule R315-266.

(3) Compliance with the 100 ppmv CO limit shall be demonstrated during the trial burn, for new facilities or an interim status facility applying for a permit, or the compliance test, for interim status facilities. To demonstrate compliance, the highest hourly rolling average CO level during any valid run of the trial burn or compliance test may not exceed 100 ppmv.

(c) Alternative carbon monoxide standard.

(1) The stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste may exceed the 100 ppmv limit except that stack gas concentrations of hydrocarbons (HC) do not exceed 20 ppmv, except as provided by Subsection R315-266-104(f) for certain industrial furnaces.

(2) HC limits shall be established under Section R315-266-104 on an hourly rolling average basis, that is, over any 60 minute period, reported as propane, and continuously corrected to 7% oxygen, dry gas basis.

(3) HC shall be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Hydrocarbons for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in appendix IX of Rule R315-266. CO and oxygen shall be continuously monitored in conformance with Subsection R315-266-104(b)(2).

(4) The alternative CO standard is established based on CO data during the trial burn, for a new facility, and the compliance test, for an interim status facility. The alternative CO standard is the average over each valid run of the highest hourly average CO level for each run. The CO limit is implemented on an hourly rolling average basis, and continuously corrected to 7% oxygen, dry gas basis.

(d) Special requirements for furnaces. Owners and operators of industrial furnaces, for example, kilns or cupolas, that feed hazardous waste for a purpose other than solely as an ingredient, see Subsection R315-266-103(a)(5)(ii), at any location other than the end where products are normally discharged and where fuels are normally fired shall comply with the hydrocarbon limits provided by Subsection R315-266-104(c) or R315-266-104(f) irrespective of whether stack gas CO concentrations meet the 100 ppmv limit of Subsection R315-266-104(b).

(e) Controls for dioxins and furans. Owners and operators of boilers and industrial furnaces that are equipped with a dry particulate matter control device that operates within the temperature range of 450-750 °F, and industrial furnaces operating under an alternative hydrocarbon limit established under Subsection R315-266-104(f) shall conduct a site-specific risk assessment to demonstrate that emissions of chlorinated dibenzo-p-dioxins and dibenzofurans do not result in an increased lifetime cancer risk to the hypothetical maximum exposed individual (MEI) exceeding 1 in 100,000 as follows:

(1) During the trial burn, for new facilities or an interim status facility applying for a permit, or compliance test, for interim status facilities, determine emission rates of the tetra-octa congeners of chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs/CDFs) using Method 0023A, Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans Emissions from Stationary Sources, EPA Publication SW-846, as incorporated by reference in Section R315-260-11 or Method 23, provided in Appendix A-7 of 40 CFR Part 60.

(2) Estimate the 2,3,7,8-TCDD toxicity equivalence of the tetra-octa CDDs/CDFs congeners using "Procedures for Estimating the Toxicity Equivalence of Chlorinated Dibenzo-p-Dioxin and Dibenzofuran Congeners" in appendix IX of Rule R315-266. Multiply the emission rates of CDD/CDF congeners with a toxicity equivalence greater than zero, see the procedure, by the calculated toxicity equivalence factor to estimate the equivalent emission rate of 2,3,7,8-TCDD.

(3) Conduct dispersion modeling using methods recommended in appendix W of 40 CFR 51, "Guideline on Air Quality Models (Revised)," 1986, and its supplements, the "Hazardous Waste Combustion Air Quality Screening Procedure", provided in appendix IX of Rule R315-266, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised, incorporated by reference in Section R315-260-11, to predict the maximum annual average off-site ground level concentration of 2,3,7,8-TCDD equivalents determined under Subsection R315-266-104(e)(2). The maximum annual average concentration shall be used if a person resides on-site.

(4) The ratio of the predicted maximum annual average ground level concentration of 2,3,7,8-TCDD equivalents to the risk-specific dose for 2,3,7,8-TCDD provided in appendix V of Rule R315-266, $2.2x10^{-7}$, may not exceed 1.0.

(f) Monitoring CO and HC in the by-pass duct of a cement kiln. Cement kilns may comply with the carbon monoxide and hydrocarbon limits provided by Subsections R315-266-104(b), R315-266-104(c), and R315-266-104(d) by monitoring in the by-pass duct except that:

(1) hazardous waste is fired only into the kiln and not at any location downstream from the kiln exit relative to the direction

of gas flow; and

(2) the by-pass duct diverts a minimum of 10% of kiln off-gas into the duct.

(g) Use of emissions test data to demonstrate compliance and establish operating limits. Compliance with the requirements of Section R315-266-104 shall be demonstrated simultaneously by emissions testing or during separate runs under identical operating conditions. Further, data to demonstrate compliance with the CO and HC limits of Section R315-266-104 or to establish alternative CO or HC limits under Section R315-266-104 shall be collected during the time that DRE testing, and if applicable, CDD/CDF testing under Subsection R315-266-104(e) and comprehensive organic emissions testing under Subsection R315-266-104(f) is conducted.

(h) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-266-102, shall be regarded as compliance with Section R315-266-104. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of Section R315-266-104 may be "information" justifying modification or revocation and re-issuance of a permit under Section R315-270-41.

R315-266-105. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Standards to Control Particulate Matter.

(a) A boiler or industrial furnace burning hazardous waste may not emit particulate matter in excess of 180 milligrams per dry standard cubic meter, 0.08 grains per dry standard cubic foot, after correction to a stack gas concentration of 7% oxygen, using procedures prescribed in 40 CFR part 60, appendix A, methods 1 through 5, and appendix IX of Rule R315-266.

(b) An owner or operator meeting the requirements of Subsection Rule R315-266-109(b) for the low risk waste exemption is exempt from the particulate matter standard.

(c) Oxygen correction.

(1) Measured pollutant levels shall be corrected for the amount of oxygen in the stack gas according to the formula:

$P_c = P_m x 14/(E-Y)$

Where:

P_c is the corrected concentration of the pollutant in the stack gas, P_m is the measured concentration of the pollutant in the stack gas, E is the oxygen concentration on a dry basis in the combustion air fed to the device, and Y is the measured oxygen concentration on a dry basis in the stack.

(2) For devices that feed normal combustion air, E will equal 21 percent. For devices that feed oxygen-enriched air for combustion, that is, air with an oxygen concentration exceeding 21 percent, the value of E will be the concentration of oxygen in the enriched air.

(3) Compliance with all emission standards provided by Sections R315-266-100 through 112 shall be based on correcting to 7 percent oxygen using this procedure.

(d) For the purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-266-102, shall be regarded as compliance with Section R315-266-105. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of Section R315-266-105 may be "information" justifying modification or revocation and re-issuance of a permit under Section R315-270-41.

R315-266-106. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Standards to Control Metals Emissions.

(a) General. The owner or operator shall comply with the metals standards provided by Subsections R315-266-106(b), (c), (d), (e), or (f) for each metal listed in Subsection R315-266-106(b) that is present in the hazardous waste at detectable levels by using appropriate analytical procedures.

(b) Tier I feed rate screening limits. Feed rate screening limits for metals are specified in appendix I of Rule R315-266 as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in Subsection R315-266-106(b)(7).

(1) Noncarcinogenic metals. The feed rates of antimony, barium, lead, mercury, thallium, and silver in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the screening limits specified in appendix I of Rule R315-266.

(i) The feed rate screening limits for antimony, barium, mercury, thallium, and silver are based on either:

(A) An hourly rolling average as defined in Subsection R315-266-102(e)(6)(i)(B); or

(B) An instantaneous limit not to be exceeded at any time.

(ii) The feed rate screening limit for lead is based on one of the following:

(A) An hourly rolling average as defined in Subsection R315-266-102(e)(6)(i)(B);

(B) An averaging period of 2 to 24 hours as defined in Subsection R315-266-102(e)(6)(ii) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or

(C) An instantaneous limit not to be exceeded at any time.

(2) Carcinogenic metals.

(i) The feed rates of arsenic, cadmium, beryllium, and chromium in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed values derived from the screening limits specified in appendix I of Rule R315-266. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation:

The summation of $AFR_{(i)}/FRSL_{(i)}$ for i = 1 to n is less than or equal to 1.0

where:

n = number of carcinogenic metals

AFR = actual feed rate to the device for metal "i"

FRSL = feed rate screening limit provided by appendix I of Rule R315-266 for metal "i".

(ii) The feed rate screening limits for the carcinogenic metals are based on either:

(A) An hourly rolling average; or

(B) An averaging period of 2 to 24 hours as defined in Subsection R315-266-102(e)(6)(ii) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis.

(3) TESH.

(i) The terrain-adjusted effective stack height is determined according to the following equation:

TESH = Ha+H1✎Tr

where:

Ha = Actual physical stack height

H1 = Plume rise as determined from appendix VI of Rule R315-266 as a function of stack flow rate and stack gas exhaust temperature.

Tr = Terrain rise within five kilometers of the stack.

(ii) The stack height (Ha) may not exceed good engineering practice as specified in 40 CFR 51.100(ii).

(iii) If the TESH for a particular facility is not listed in the table in the appendices, the nearest lower TESH listed in the table shall be used. If the TESH is four meters or less, a value of four meters shall be used.

(4) Terrain type. The screening limits are a function of whether the facility is located in noncomplex or complex terrain. A device located where any part of the surrounding terrain within 5 kilometers of the stack equals or exceeds the elevation of the physical stack height (Ha) is considered to be in complex terrain and the screening limits for complex terrain apply. Terrain measurements are to be made from U.S. Geological Survey 7.5-minute topographic maps of the area surrounding the facility.

(5) Land use. The screening limits are a function of whether the facility is located in an area where the land use is urban or rural. To determine whether land use in the vicinity of the facility is urban or rural, procedures provided in appendices IX or X of Rule R315-266 shall be used.

(6) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls of metals emissions under a RCRA operating permit or interim status controls shall comply with the screening limits for all such units assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. The worst-case stack is determined from the following equation as applied to each stack:

K = HVT

Where:

K = a parameter accounting for relative influence of stack height and plume rise;

H = physical stack height (meters);

V = stack gas flow rate (m3/second); and

T = exhaust temperature (deg. K).

The stack with the lowest value of K is the worst-case stack.

(7) Criteria for facilities not eligible for screening limits. If any criteria below are met, the Tier I and Tier II screening limits do not apply. Owners and operators of such facilities shall comply with either the Tier III standards provided by Subsection R315-266-106(d) or with the adjusted Tier I feed rate screening limits provided by Subsection R315-266-106(e).

(i) The device is located in a narrow valley less than one kilometer wide;

(ii) The device has a stack taller than 20 meters and is located such that the terrain rises to the physical height within one kilometer of the facility;

(iii) The device has a stack taller than 20 meters and is located within five kilometers of a shoreline of a large body of water such as an ocean or large lake;

(iv) The physical stack height of any stack is less than 2.5 times the height of any building within five building heights or five projected building widths of the stack and the distance from the stack to the closest boundary is within five building heights or five projected building widths of the associated building; or

(v) The Director determines that standards based on site-specific dispersion modeling are required.

(8) Implementation. The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate screening limits are not exceeded.

(c) Tier II emission rate screening limits. Emission rate screening limits are specified in appendix I as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in Subsection R315-266-106(b)(7).

(1) Noncarcinogenic metals. The emission rates of antimony, barium, lead, mercury, thallium, and silver shall not exceed the screening limits specified in appendix I of Rule R315-266.

(2) Carcinogenic metals. The emission rates of arsenic, cadmium, beryllium, and chromium shall not exceed values derived from the screening limits specified in appendix I of Rule R315-266. The emission rate of each of these metals is limited to a level such that the sum of the ratios of the actual emission rate to the emission rate screening limit specified in appendix I shall not exceed 1.0, as provided by the following equation:

The summation of $AER_{(i)}/ERSL_{(i)}$ for i = 1 to n is less than or equal to 1.0

where:

n = number of carcinogenic metals

AER = actual emission rate for metal "i"

ERSL = emission rate screening limit provided by appendix I of Rule R315-266 for metal "i".

(3) Implementation. The emission rate limits shall be implemented by limiting feed rates of the individual metals to levels during

the trial burn, for new facilities or an interim status facility applying for a permit, or the compliance test, for interim status facilities. The feed rate averaging periods are the same as provided by Subsections R315-266-106(b)(1)(i) and (ii) and (b)(2)(ii). The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under Sections R315-266-102 or 103 are not exceeded.

(4) Definitions and limitations. The definitions and limitations provided by Subsection R315-266-106(b) for the following terms also apply to the Tier II emission rate screening limits provided by Subsection R315-266-106(c): terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(5) Multiple stacks.

(i) Owners and operators of facilities with more than one onsite stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a RCRA operating permit or interim status controls shall comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

(ii) The worst-case stack is determined by procedures provided in Subsection R315-266-106(b)(6).

(iii) For each metal, the total emissions of the metal from those stacks shall not exceed the screening limit for the worst-case stack.

(d) Tier III and Adjusted Tier I site-specific risk assessment. The requirements of Subsection R315-266-106(d) apply to facilities complying with either the Tier III or Adjusted Tier I controls, except where specified otherwise.

(1) General. Conformance with the Tier III metals controls shall be demonstrated by emissions testing to determine the emission rate for each metal. In addition, conformance with either the Tier III or Adjusted Tier I metals controls shall be demonstrated by air dispersion modeling to predict the maximum annual average off-site ground level concentration for each metal, and a demonstration that acceptable ambient levels are not exceeded.

(2) Acceptable ambient levels. Appendices IV and V of Rule R315-266 list the acceptable ambient levels for purposes of Rule R315-266. Reference air concentrations (RACs) are listed for the noncarcinogenic metals and 10^{-5} risk-specific doses (RSDs) are listed for the carcinogenic metals. The RSD for a metal is the acceptable ambient level for that metal provided that only one of the four carcinogenic metals is emitted. If more than one carcinogenic metal is emitted, the acceptable ambient level for the carcinogenic metals is a fraction of the RSD as described in Subsection R315-266-106(d)(3).

(3) Carcinogenic metals. For the carcinogenic metals, arsenic, cadmium, beryllium, and chromium, the sum of the ratios of the predicted maximum annual average off-site ground level concentrations, except that on-site concentrations shall be considered if a person resides on site, to the risk-specific dose (RSD) for all carcinogenic metals emitted shall not exceed 1.0 as determined by the following equation:

The summation of Predicted Ambient Concentration$_{(i)}$/Risk-Specific Dose$_{(i)}$ for i = 1 to n is less than or equal to 1.0

where: n = number of carcinogenic metals

(4) Noncarcinogenic metals. For the noncarcinogenic metals, the predicted maximum annual average off-site ground level concentration for each metal shall not exceed the reference air concentration (RAC).

(5) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a RCRA operating permit or interim status controls shall conduct emissions testing, except that facilities complying with Adjusted Tier I controls need not conduct emissions testing, and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels.

(6) Implementation. Under Tier III, the metals controls shall be implemented by limiting feed rates of the individual metals to levels during the trial burn, for new facilities or an interim status facility applying for a permit, or the compliance test, for interim status facilities. The feed rate averaging periods are the same as provided by Subsections R315-266-106(b)(1)(i) and (ii) and (b)(2)(ii). The feed rate of metals in each feedstream shall be monitored to ensure that the feed rate limits for the feedstreams specified under Sections R315-266-102 or 103 are not exceeded.

(e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limits provided by appendix I of Rule R315-266 to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit for a metal is determined by back-calculating from the acceptable ambient level provided by appendices IV and V of Rule R315-266 using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit. The feed rate screening limits for carcinogenic metals are implemented as prescribed in Subsection R315-266-106(b)(2).

(f) Alternative implementation approaches.

(1) The Director may approve on a case-by-case basis approaches to implement the Tier II or Tier III metals emission limits provided by Subsections R315-266-106(c) or (d) alternative to monitoring the feed rate of metals in each feedstream.

(2) The emission limits provided by Subsection R315-266-106(d) shall be determined as follows:

(i) For each noncarcinogenic metal, by back-calculating from the RAC provided in appendix IV of Rule R315-266 to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with Subsection R315-266-106(h); and

(ii) For each carcinogenic metal by:

(A) Back-calculating from the RSD provided in appendix V of Rule R315-266 to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with Subsection R315-266-106(h); and

(B) If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by Subsection R315-266-106(f)(2)(ii)(A) such that the sum for all carcinogenic metals of the ratios of the selected

emission limit to the emission rate determined by Subsection R315-266-106(f)(2)(ii)(A) does not exceed 1.0.

(g) Emission testing

(1) General. Emission testing for metals shall be conducted using Method 0060, Determinations of Metals in Stack Emissions, EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(2) Hexavalent chromium. Emissions of chromium are assumed to be hexavalent chromium unless the owner or operator conducts emissions testing to determine hexavalent chromium emissions using procedures prescribed in Method 0061, Determination of Hexavalent Chromium Emissions from Stationary Sources, EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(h) Dispersion Modeling. Dispersion modeling required under Section R315-266-106 shall be conducted according to methods recommended in appendix W of 40 CFR 51, "Guideline on Air Quality Models (Revised)" (1986) and its supplements, the "Hazardous Waste Combustion Air Quality Screening Procedure", provided in appendix IX of Rule R315-266, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised, incorporated by reference in Section R315-260-11, to predict the maximum annual average off-site ground level concentration. However, on-site concentrations shall be considered when a person resides on-site.

(i) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-266-102, shall be regarded as compliance with Section R315-266-106. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of Section R315-266-106 may be "information" justifying modification or revocation and re-issuance of a permit under Section R315-270-41.

R315-266-107. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Standards to Control Hydrogen Chloride (HCl) and Chlorine Gas (Cl_2) Emissions.

(a) General. The owner or operator shall comply with the hydrogen chloride (HCl) and chlorine (Cl_2) controls provided by Subsection R315-266-107(b), (c), or (e).

(b) Screening limits

(1) Tier I feed rate screening limits. Feed rate screening limits are specified for total chlorine in appendix II of Rule R315-266 as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The feed rate of total chlorine and chloride, both organic and inorganic, in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the levels specified.

(2) Tier II emission rate screening limits. Emission rate screening limits for HCl and Cl_2 are specified in appendix III of Rule R315-266 as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The stack emission rates of HCl and Cl_2 shall not exceed the levels specified.

(3) Definitions and limitations. The definitions and limitations provided by Subsection R315-266-106(b) for the following terms also apply to the screening limits provided by Subsection R315-266-107(b): terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(4) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl_2 emissions under a RCRA operating permit or interim status controls shall comply with the Tier I and Tier II screening limits for those stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

(i) The worst-case stack is determined by procedures provided in Subsection R315-266-106(b)(6).

(ii) Under Tier I, the total feed rate of chlorine and chloride to all subject devices shall not exceed the screening limit for the worst-case stack.

(iii) Under Tier II, the total emissions of HCl and Cl_2 from all subject stacks shall not exceed the screening limit for the worst-case stack.

(c) Tier III site-specific risk assessments

(1) General. Conformance with the Tier III controls shall be demonstrated by emissions testing to determine the emission rate for HCl and Cl_2, air dispersion modeling to predict the maximum annual average off-site ground level concentration for each compound, and a demonstration that acceptable ambient levels are not exceeded.

(2) Acceptable ambient levels. Appendix IV of Rule R315-266 lists the reference air concentrations (RACs) for HCl, 7 micrograms per cubic meter, and Cl_2, 0.4 micrograms per cubic meter.

(3) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl_2 emissions under a RCRA operating permit or interim status controls shall conduct emissions testing and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels for HCl and Cl_2.

(d) Averaging periods. The HCl and Cl_2 controls are implemented by limiting the feed rate of total chlorine and chloride in all feedstreams, including hazardous waste, fuels, and industrial furnace feed stocks. Under Tier I, the feed rate of total chloride and chlorine is limited to the Tier I Screening Limits. Under Tier II and Tier III, the feed rate of total chloride and chlorine is limited to the feed rates during the trial burn, for new facilities or an interim status facility applying for a permit, or the compliance test, for interim status facilities). The feed rate limits are based on either:

(1) An hourly rolling average as defined in Section R315-266-102(e)(6); or

(2) An instantaneous basis not to be exceeded at any time.

(e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limit provided by appendix II of Rule R315-266 to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit

is determined by back-calculating from the acceptable ambient level for Cl_2 provided by appendix IV of Rule R315-266 using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit.

(f) Emissions testing. Emissions testing for HCl and Cl_2 shall be conducted using the procedures described in Methods 0050 or 0051, EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

(g) Dispersion modeling. Dispersion modeling shall be conducted according to the provisions of Subsection R315-266-106(h).

(h) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit, under Section R315-266-102, shall be regarded as compliance with Section R315-266-107. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of Section R315-266-107 may be "information" justifying modification or revocation and re-issuance of a permit under Section R315-270-41.

R315-266-108. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Small Quantity On-Site Burner Exemption.

(a) Exempt quantities. Owners and operators of facilities that burn hazardous waste in an on-site boiler or industrial furnace are exempt from the requirements of Sections R315-266-100 through R315-266-112 except that:

(1) the quantity of hazardous waste burned in a device for a calendar month does not exceed the limits provided in the following table based on the terrain-adjusted effective stack height as defined in Subsection R315-266-106(b)(3):

Table 1
Exempt Quantities for Small Quantity Burner Exemption

Terrain-adjusted effective stack height of device in meters	Allowable hazardous waste burning rate, gallons per month
0 to 3.9	0
4.0 to 5.9	13
6.0 to 7.9	18
8.0 to 9.9	27
10.0 to 11.9	40
12.0 to 13.9	48
14.0 to 15.9	59
16.0 to 17.9	69
18.0 to 19.9	76
20.0 to 21.9	84
22.0 to 23.9	93
24.0 to 25.9	100
26.0 to 27.9	110
28.0 to 29.9	130
30.0 to 34.9	140
35.0 to 39.9	170
40.0 to 44.9	210
45.0 to 49.9	260
50.0 to 54.9	330
55.0 to 59.9	400
60.0 to 64.9	490
65.0 to 69.9	610
70.0 to 74.9	680
75.0 to 79.9	760
80.0 to 84.9	850
85.0 to 89.9	960
90.0 to 94.9	1100
95.0 to 99.9	1200
100.0 to 104.9	1300
105.0 to 109.9	1500
110.0 to 114.9	1700
115.0 or greater	1900

(2) the maximum hazardous waste firing rate does not exceed at any time 1% of the total fuel requirements for the device, hazardous waste plus other fuel, on a total heat input or mass input basis, whichever results in the lower mass feed rate of hazardous waste;

(3) the hazardous waste has a minimum heating value of 5,000 Btu/lb, as generated; and

(4) the hazardous waste fuel does not contain, and is not derived from, EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(b) Mixing with non-hazardous fuels. If hazardous waste fuel is mixed with a non-hazardous fuel, the quantity of hazardous waste before the mixing is used to comply with Subsection R315-266-108(a).

(c) Multiple stacks. If an owner or operator burns hazardous waste in more than one on-site boiler or industrial furnace exempt under Section R315-266-108, the quantity limits provided by Subsection R315-266-108(a)(1) are implemented according to the following equation:

The summation of Actual Quantity $Burned_{(i)}$/Allowable quantity $Burned_{(i)}$ for i = 1 to n is less than or equal to 1.0

where:

n means the number of stacks;

Actual Quantity Burned means the waste quantity burned per month in device "i";

Allowable Quantity Burned means the maximum allowable exempt quantity for stack "i" from the table in Subsection R315-266-108(a)(1).

(1) Hazardous wastes that are subject to the conditions for exemption for very small quantity generators under Section R315-262-14 may be burned in an off-site device under the exemption provided by Section R315-266-108, but shall be included in the quantity determination for the exemption.

(d) Notification requirements. The owner or operator of facilities qualifying for the small quantity burner exemption under Section R315-266-108 shall provide a one-time signed, written notice to the director indicating the following:

(1) The combustion unit is operating as a small quantity burner of hazardous waste;

(2) The owner and operator are in compliance with the requirements of Section R315-266-108; and

(3) The maximum quantity of hazardous waste that the facility may burn per month as provided by Subsection R315-266-108(a)(1).

(e) Recordkeeping requirements. The owner or operator shall maintain at the facility for at least three years sufficient records documenting compliance with the hazardous waste quantity, firing rate, and heating value limits of Section R315-266-108. At a minimum, these records shall state the quantity of hazardous waste and other fuel burned in each unit per calendar month, and the heating value of the hazardous waste.

R315-266-109. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Low Risk Waste Exemption.

(a) Waiver of DRE standard. The DRE standard of Subsection R315-266-104(a) does not apply if the boiler or industrial furnace is operated in conformance with Subsection R315-266-109(a)(1) and the owner or operator demonstrates by procedures prescribed in Subsection R315-266-109(a)(2) that the burning will not result in unacceptable adverse health effects.

(1) The device shall be operated as follows:

(i) A minimum of 50 percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the Director on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel. Such fuels are termed "primary fuel" for purposes of Section R315-266-109. Tall oil is a fuel derived from vegetable and rosin fatty acids. The 50 percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

(ii) Primary fuels and hazardous waste fuels shall have a minimum as-fired heating value of 8,000 Btu/lb;

(iii) The hazardous waste is fired directly into the primary fuel flame zone of the combustion chamber; and

(iv) The device operates in conformance with the carbon monoxide controls provided by Subsection R315-266-104(b)(1). Devices subject to the exemption provided by Section R315-266-109 are not eligible for the alternative carbon monoxide controls provided by Subsection R315-266-104(c).

(2) Procedures to demonstrate that the hazardous waste burning will not pose unacceptable adverse public health effects are as follows:

(i) Identify and quantify those nonmetal compounds listed in appendix VIII, Rule R315-261 that could reasonably be expected to be present in the hazardous waste. The constituents excluded from analysis shall be identified and the basis for their exclusion explained;

(ii) Calculate reasonable, worst case emission rates for each constituent identified in Subsection R315-266-109(a)(2)(i) by assuming the device achieves 99.9 percent destruction and removal efficiency. That is, assume that 0.1 percent of the mass weight of each constituent fed to the device is emitted.

(iii) For each constituent identified in Subsection R315-266-109(a)(2)(i), use emissions dispersion modeling to predict the maximum annual average ground level concentration of the constituent.

(A) Dispersion modeling shall be conducted using methods specified in Subsection R315-266-106(h).

(B) Owners and operators of facilities with more than one on-site stack from a boiler or industrial furnace that is exempt under Section R315-266-109 shall conduct dispersion modeling of emissions from all stacks exempt under Section R315-266-109 to predict ambient levels prescribed by Subsection R315-266-109(a).

(iv) Ground level concentrations of constituents predicted under Subsection R315-266-109(a)(2)(iii) shall not exceed the following levels:

(A) For the noncarcinogenic compounds listed in appendix IV of Rule R315-266, the levels established in appendix IV;

(B) For the carcinogenic compounds listed in appendix V of Rule R315-266, the sum for all constituents of the ratios of the actual ground level concentration to the level established in appendix V cannot exceed 1.0; and

(C) For constituents not listed in appendix IV or V, 0.1 micrograms per cubic meter.

(b) Waiver of particulate matter standard. The particulate matter standard of Section R315-266-105 does not apply if:

(1) The DRE standard is waived under Subsection R315-266-109(a); and

(2) The owner or operator complies with the Tier I or adjusted Tier I metals feed rate screening limits provided by Subsections

R315-266-106(b) or (e).

R315-266-110. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Waiver of DRE Trial Burn for Boilers.

Boilers that operate under the special requirements of Section R315-266-110, and that do not burn hazardous waste containing, or waste derived from, EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027, are considered to be in conformance with the DRE standard of Subsection R315-266-104(a), and a trial burn to demonstrate DRE is waived. When burning hazardous waste:

(a) A minimum of 50 percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the Director on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel. Such fuels are termed "primary fuel" for purposes of Section R315-266-110. Tall oil is a fuel derived from vegetable and rosin fatty acids. The 50 percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

(b) Boiler load shall not be less than 40 percent. Boiler load is the ratio at any time of the total heat input to the maximum design heat input;

(c) Primary fuels and hazardous waste fuels shall have a minimum as-fired heating value of 8,000 Btu/lb, and each material fired in a burner where hazardous waste is fired shall have a heating value of at least 8,000 Btu/lb, as-fired;

(d) The device shall operate in conformance with the carbon monoxide standard provided by Subsection R315-266-104(b)(1). Boilers subject to the waiver of the DRE trial burn provided by Section R315-266-110 are not eligible for the alternative carbon monoxide standard provided by Subsection R315-266-104(c);

(e) The boiler shall be a watertube type boiler that does not feed fuel using a stoker or stoker type mechanism; and

(f) The hazardous waste shall be fired directly into the primary fuel flame zone of the combustion chamber with an air or steam atomization firing system, mechanical atomization system, or a rotary cup atomization system under the following conditions:

(1) Viscosity. The viscosity of the hazardous waste fuel as-fired shall not exceed 300 SSU;

(2) Particle size. When a high pressure air or steam atomizer, low pressure atomizer, or mechanical atomizer is used, 70% of the hazardous waste fuel shall pass through a 200 mesh, 74 micron, screen, and when a rotary cup atomizer is used, 70% of the hazardous waste shall pass through a 100 mesh, 150 micron, screen;

(3) Mechanical atomization systems. Fuel pressure within a mechanical atomization system and fuel flow rate shall be maintained within the design range taking into account the viscosity and volatility of the fuel;

(4) Rotary cup atomization systems. Fuel flow rate through a rotary cup atomization system shall be maintained within the design range taking into account the viscosity and volatility of the fuel.

R315-266-111. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Standards for Direct Transfer.

(a) Applicability. The regulations in Section R315-266-111 apply to owners and operators of boilers and industrial furnaces subject to Sections R315-266-102 or 103 if hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit.

(b) Definitions.

(1) When used in Section R315-266-111, the following terms have the meanings given below:

Direct transfer equipment means any device, including but not limited to, such devices as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste between a container, i.e., transport vehicle, and a boiler or industrial furnace.

Container means any portable device in which hazardous waste is transported, stored, treated, or otherwise handled, and includes transport vehicles that are containers themselves, e.g., tank trucks, tanker-trailers, and rail tank cars, and containers placed on or in a transport vehicle.

(2) Section R315-266-111 references several requirements provided in Sections R315-264-170 through 200 and 40 CFR 265.170 through 202, which are adopted by reference. For purposes of Section R315-266-111, the term "tank systems" in those referenced requirements means direct transfer equipment as defined in Subsection R315-266-111(b)(1).

(c) General operating requirements.

(1) No direct transfer of a pumpable hazardous waste shall be conducted from an open-top container to a boiler or industrial furnace.

(2) Direct transfer equipment used for pumpable hazardous waste shall always be closed, except when necessary to add or remove the waste, and shall not be opened, handled, or stored in a manner that may cause any rupture or leak.

(3) The direct transfer of hazardous waste to a boiler or industrial furnace shall be conducted so that it does not:

(i) Generate extreme heat or pressure, fire, explosion, or violent reaction;

(ii) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(iii) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(iv) Damage the structural integrity of the container or direct transfer equipment containing the waste;

(v) Adversely affect the capability of the boiler or industrial furnace to meet the standards provided by Sections R315-266-104 through 107; or

(vi) Threaten human health or the environment.

(4) Hazardous waste shall not be placed in direct transfer equipment, if it could cause the equipment or its secondary containment system to rupture, leak, corrode, or otherwise fail.

(5) The owner or operator of the facility shall use appropriate controls and practices to prevent spills and overflows from the direct transfer equipment or its secondary containment systems. These include at a minimum:

(i) Spill prevention controls, e.g., check valves, dry discount couplings; and

(ii) Automatic waste feed cutoff to use if a leak or spill occurs from the direct transfer equipment.

(d) Areas where direct transfer vehicles, containers, are located. Applying the definition of container under Section R315-266-111, owners and operators shall comply with the following requirements:

(1) The containment requirements of Section R315-264-175;

(2) The use and management requirements of 40 CFR 265.171 through 178, which are adopted by reference, except for 265-174, and except that in lieu of the special requirements of 265-176 for ignitable or reactive waste, the owner or operator may comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjacent property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's (NFPA) "Flammable and Combustible Liquids Code," (1977 or 1981), incorporated by reference, see Section R315-260-11. The owner or operator shall obtain and keep on file at the facility a written certification by the local Fire Marshall that the installation meets the subject NFPA codes; and

(3) The closure requirements of Section R315-264-178.

(e) Direct transfer equipment. Direct transfer equipment shall meet the following requirements:

(1) Secondary containment. Owners and operators shall comply with the secondary containment requirements of 40 CFR 265.193, which are adopted by reference, except for 265-193(a), (d), (e), and (i) as follows:

(i) For all new direct transfer equipment, prior to their being put into service; and

(ii) For existing direct transfer equipment within 2 years after August 21, 1991.

(2) Requirements prior to meeting secondary containment requirements.

(i) For existing direct transfer equipment that does not have secondary containment, the owner or operator shall determine whether the equipment is leaking or is unfit for use. The owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by a qualified, registered professional engineer in accordance with Subsection R315-270-11(d) that attests to the equipment's integrity by August 21, 1992.

(ii) This assessment shall determine whether the direct transfer equipment is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be transferred to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

(A) Design standard(s), if available, according to which the direct transfer equipment was constructed;

(B) Hazardous characteristics of the waste(s) that have been or will be handled;

(C) Existing corrosion protection measures;

(D) Documented age of the equipment, if available, otherwise, an estimate of the age; and

(E) Results of a leak test or other integrity examination such that the effects of temperature variations, vapor pockets, cracks, leaks, corrosion, and erosion are accounted for.

(iii) If, as a result of the assessment specified above, the direct transfer equipment is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of 40 CFR 265.196(a) and (b), which are adopted by reference.

(3) Inspections and recordkeeping.

(i) The owner or operator shall inspect at least once each operating hour when hazardous waste is being transferred from the transport vehicle, container, to the boiler or industrial furnace:

(A) Overfill/spill control equipment, e.g., waste-feed cutoff systems, bypass systems, and drainage systems, to ensure that it is in good working order;

(B) The above ground portions of the direct transfer equipment to detect corrosion, erosion, or releases of waste, e.g., wet spots, dead vegetation; and

(C) Data gathered from monitoring equipment and leak-detection equipment, e.g., pressure and temperature gauges, to ensure that the direct transfer equipment is being operated according to its design.

(ii) The owner or operator shall inspect cathodic protection systems, if used, to ensure that they are functioning properly according to the schedule provided by 40 CFR 265.195(b), which is adopted by reference:

(iii) Records of inspections made under Subsection R315-266-11(e)(3) shall be maintained in the operating record at the facility, and available for inspection for at least 3 years from the date of the inspection.

(4) Design and installation of new ancillary equipment. Owners and operators shall comply with the requirements of 40 CFR 265.192, which is adopted by reference.

(5) Response to leaks or spills. Owners and operators shall comply with the requirements of 40 CFR 265.196, which is adopted by reference.

(6) Closure. Owners and operators shall comply with the requirements of 40 CFR 265.197, which are adopted by reference, except for 265-197(c)(2) through (c)(4).

R315-266-112. Hazardous Waste Burned in Boilers and Industrial Furnaces -- Regulation of Residues.

A residue derived from the burning or processing of hazardous waste in a boiler or industrial furnace is not excluded from the definition of a hazardous waste under Subsections R315-261-4(b)(4), (7), or (8) unless the device and the owner or operator meet the following requirements:

(a) The device meets the following criteria:

(1) Boilers. Boilers shall burn at least 50% coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal;

(2) Ore or mineral furnaces. Industrial furnaces subject to Subsection R315-261-4(b)(7) shall process at least 50% by weight

normal, nonhazardous raw materials;

(3) Cement kilns. Cement kilns shall process at least 50% by weight normal cement-production raw materials;

(b) The owner or operator demonstrates that the hazardous waste does not significantly affect the residue by demonstrating conformance with either of the following criteria:

(1) Comparison of waste-derived residue with normal residue. The waste-derived residue shall not contain appendix VIII, Rule R315-261 constituents, toxic constituents, that could reasonably be attributable to the hazardous waste at concentrations significantly higher than in residue generated without burning or processing of hazardous waste, using the following procedure. Toxic compounds that could reasonably be attributable to burning or processing the hazardous waste, constituents of concern, include toxic constituents in the hazardous waste, and the organic compounds listed in appendix VIII of Rule R315-266 that may be generated as products of incomplete combustion. For polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, analyses shall be performed to determine specific congeners and homologues, and the results converted to 2,3,7,8-TCDD equivalent values using the procedure specified in section 4.0 of appendix IX of Rule R315-266.

(i) Normal residue. Concentrations of toxic constituents of concern in normal residue shall be determined based on analyses of a minimum of 10 samples representing a minimum of 10 days of operation. Composite samples may be used to develop a sample for analysis provided that the compositing period does not exceed 24 hours. The upper tolerance limit, at 95% confidence with a 95% proportion of the sample distribution, of the concentration in the normal residue shall be considered the statistically-derived concentration in the normal residue. If changes in raw materials or fuels reduce the statistically-derived concentrations of the toxic constituents of concern in the normal residue, the statistically-derived concentrations shall be revised or statistically-derived concentrations of toxic constituents in normal residue shall be established for a new mode of operation with the new raw material or fuel. To determine the upper tolerance limit in the normal residue, the owner or operator shall use statistical procedures prescribed in "Statistical Methodology for Bevill Residue Determinations" in appendix IX of Rule R315-266.

(ii) Waste-derived residue. Waste-derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the concentrations established for the normal residue under Subsection R315-266-112(b)(1)(i). If so, hazardous waste burning has significantly affected the residue and the residue shall not be excluded from the definition of a hazardous waste. Concentrations of toxic constituents of concern in the waste-derived residue shall be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent shall be the arithmetic mean of the concentrations in the samples. No results may be disregarded; or

(2) Comparison of waste-derived residue concentrations with health-based limits

(i) Nonmetal constituents: The concentration of each nonmetal toxic constituent of concern, specified in Subsection R315-266-112(b)(1), in the waste-derived residue shall not exceed the health-based level specified in appendix VII of Rule R315-266, or the level of detection, whichever is higher. If a health-based limit for a constituent of concern is not listed in appendix VII of Rule R315-266, then a limit of 0.002 micrograms per kilogram or the level of detection, which shall be determined by using appropriate analytical procedures, whichever is higher, shall be used. The levels specified in appendix VII of Rule R315-266, and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of appendix VII of Rule R315-266, are administratively stayed under the condition, for those constituents specified in Subsection R315-266-112(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in Section R315-268-43 for F039 nonwastewaters. In complying with those alternative levels, if an owner or operator is unable to detect a constituent despite documenting use of best good-faith efforts as defined by applicable guidance or standards, the owner or operator is deemed to be in compliance for that constituent. Until new guidance or standards are developed, the owner or operator may demonstrate such good-faith efforts by achieving a detection limit for the constituent that does not exceed an order of magnitude above the level provided by Section R315-268-43 for F039 nonwastewaters. In complying with the Section R315-268-43 F039 nonwastewater levels for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, analyses shall be performed for total hexachlorodibenzo-p-dioxins, total hexachlorodibenzofurans, total pentachlorodibenzo-p-dioxins, total pentachlorodibenzofurans, total tetrachlorodibenzo-p-dioxins, and total tetrachlorodibenzofurans.

Note to Subsection R315-266-112(b)(2)(i): The administrative stay, under the condition that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in Section R315-268-43 for F039 nonwastewaters, remains in effect until further administrative action is taken and notice is published.

(ii) Metal constituents. The concentration of metals in an extract obtained using the Toxicity Characteristic Leaching Procedure of Section R315-261-24 shall not exceed the levels specified in appendix VII of Rule R315-266; and

(iii) Sampling and analysis. Waste-derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the health-based levels. Concentrations of toxic constituents of concern in the waste-derived residue shall be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent shall be the arithmetic mean of the concentrations in the samples. No results may be disregarded; and

(c) Records sufficient to document compliance with the provisions of Section R315-266-112 shall be retained until closure of the boiler or industrial furnace unit. At a minimum, the following shall be recorded.

(1) Levels of constituents in appendix VIII, Rule R315-261, that are present in waste-derived residues;

(2) If the waste-derived residue is compared with normal residue under Subsection R315-266-112(b)(1):

(i) The levels of constituents in appendix VIII, Rule R315-261, that are present in normal residues; and

(ii) Data and information, including analyses of samples as necessary, obtained to determine if changes in raw materials or fuels would reduce the concentration of toxic constituents of concern in the normal residue.

R315-266-202. Military Munitions -- Definition of Solid Waste.

(a) Reserved.

(b) Reserved.

(c) Reserved.

(d) For purposes of Subsection 19-6-102(19)(a), a used or fired military munition is a solid waste, and, therefore, is potentially subject to RCRA corrective action authorities under sections 3004(u) and (v), and 3008(h), or imminent and substantial endangerment authorities under section 7003, if the munition lands off-range and is not promptly rendered safe and/or retrieved. Any imminent and substantial threats associated with any remaining material shall be addressed. If remedial action is infeasible, the operator of the range shall maintain a record of the event for as long as any threat remains. The record shall include the type of munition and its location, to the extent the location is known.

R315-266-500. Hazardous Waste Pharmaceuticals -- Definitions for Sections R315-266-500 through R315-266-510.

(a) The following definitions apply to Sections R315-266-500 through R315-266-510:

(1) "Evaluated hazardous waste pharmaceutical" means a prescription hazardous waste pharmaceutical that has been evaluated by a reverse distributor in accordance with Subsection R315-266-510(a)(3) and will not be sent to another reverse distributor for further evaluation or verification of manufacture credit.

(2) "Hazardous waste pharmaceutical" means a pharmaceutical that is a solid waste, as defined in Section R315-261-2, and exhibits one or more characteristics identified in Sections R315-261-20 through R315-261-24 or is listed in Sections R315-261-30 through R315-261-35. A pharmaceutical is not a solid waste, as defined in Section R315-261-2, and therefore not a hazardous waste pharmaceutical, if it is legitimately used or reused, for example, lawfully donated for its intended purpose, or reclaimed. An over-the-counter pharmaceutical, dietary supplement, or homeopathic drug is not a solid waste, as defined in Section R315-261-2, and therefore not a hazardous waste pharmaceutical, if it has a reasonable expectation of being legitimately used or reused, for example, lawfully redistributed for its intended purpose, or reclaimed.

(3) "Healthcare facility" means any person that is lawfully authorized to:

(i) provide preventative, diagnostic, therapeutic, rehabilitative, maintenance or palliative care, and counseling, service, assessment or procedure with respect to the physical or mental condition, or functional status, of a human or animal or that affects the structure or function of the human or animal body; or

(ii) distribute, sell, or dispense pharmaceuticals, including over-the-counter pharmaceuticals, dietary supplements, homeopathic drugs, or prescription pharmaceuticals. This definition includes, but is not limited to, wholesale distributors, third-party logistics providers that serve as forward distributors, military medical logistics facilities, hospitals, psychiatric hospitals, ambulatory surgical centers, health clinics, physicians' offices, optical and dental providers, chiropractors, long-term care facilities, ambulance services, pharmacies, long-term care pharmacies, mail-order pharmacies, retailers of pharmaceuticals, veterinary clinics, and veterinary hospitals. This definition does not include pharmaceutical manufacturers, reverse distributors, or reverse logistics centers.

(4) "Household waste pharmaceutical" means a pharmaceutical that is a solid waste, as defined in Section R315-261-2, but is excluded from being a hazardous waste under Subsection R315-261-4(b)(1).

(5) "Long-term care facility" means a licensed entity that provides assistance with activities of daily living, including managing and administering pharmaceuticals to one or more individuals at the facility. This definition includes, but is not limited to, hospice facilities, nursing facilities, skilled nursing facilities, and the nursing and skilled nursing care portions of continuing care retirement communities. Not included within the scope of this definition are group homes, independent living communities, assisted living facilities, and the independent and assisted living portions of continuing care retirement communities.

(6) "Non-creditable hazardous waste pharmaceutical" means a prescription hazardous waste pharmaceutical that does not have a reasonable expectation to be eligible for manufacturer credit or a nonprescription hazardous waste pharmaceutical that does not have a reasonable expectation to be legitimately used or reused or reclaimed. This includes but is not limited to, investigational drugs, free samples of pharmaceuticals received by healthcare facilities, residues of pharmaceuticals remaining in empty containers, contaminated personal protective equipment, floor sweepings, and clean-up material from the spills of pharmaceuticals.

(7) Non-hazardous waste pharmaceutical means a pharmaceutical that is a solid waste, as defined in Section R315-261-2, and is not listed in Sections R315-261-30 through R315-261-35, and does not exhibit a characteristic identified in Sections R315-261-20 through R315-261-24.

(8) "Non-pharmaceutical hazardous waste" means a solid waste, as defined in Section R315-261-2, that is listed in Sections R315-261-30 through R315-261-35, or exhibits one or more characteristics identified in Sections R315-261-20 through R315-261-24, but is not a pharmaceutical, as defined in Section R315-266-500.

(9) "Pharmaceutical" means any drug or dietary supplement for use by humans or other animals; any electronic nicotine delivery system, such as electronic cigarette or vaping pen; or any liquid nicotine, e-liquid, packaged for retail sale for use in electronic nicotine delivery systems, such as pre-filled cartridges or vials. This definition includes, but is not limited to, dietary supplements, as defined by the Federal Food, Drug and Cosmetic Act; prescription drugs, as defined by 21 CFR 203.3(y); over-the-counter drugs; homeopathic drugs; compounded drugs; investigational new drugs; pharmaceuticals remaining in non-empty containers; personal protective equipment contaminated with pharmaceuticals; and clean-up material from spills of pharmaceuticals. This definition does not include dental amalgam or sharps.

(10) "Potentially creditable hazardous waste pharmaceutical" means a prescription hazardous waste pharmaceutical that has a

reasonable expectation to receive manufacturer credit and is:

(i) in original manufacturer packaging, except pharmaceuticals that were subject to a recall;

(ii) undispensed; and

(iii) unexpired or less than one-year past expiration date. The term does not include evaluated hazardous waste pharmaceuticals or nonprescription pharmaceuticals including, but not limited to, over-the-counter drugs, homeopathic drugs, and dietary supplements.

(11) "Reverse distributor" means any person that receives and accumulates prescription pharmaceuticals that are potentially creditable hazardous waste pharmaceuticals for the purpose of facilitating or verifying manufacturer credit. Any person, including forward distributors, third-party logistics providers, and pharmaceutical manufacturers, that processes prescription pharmaceuticals for the facilitation or verification of manufacturer credit is considered a reverse distributor.

R315-266-501. Hazardous Waste Pharmaceuticals -- Applicability.

(a) A healthcare facility that is a very small quantity generator when counting its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, remains subject to Section R315-262-14 and is not subject to Sections R315-266-500 through R315-266-510, except for Sections R315-266-505 and R315-266-507 and the optional requirements of Section R315-266-504.

(b) A healthcare facility that is a very small quantity generator when counting its hazardous waste, including both its hazardous waste pharmaceuticals and its non-pharmaceutical hazardous waste, has the option of complying with Subsection R315-266-501(d) for the management of its hazardous waste pharmaceuticals as an alternative to complying with Section R315-262-14 and the optional requirements of Section R315-266-504.

(c) A healthcare facility or reverse distributor remains subject to the applicable hazardous waste rules with respect to the management of its non-pharmaceutical hazardous waste.

(d) With the exception of healthcare facilities identified in Subsection R315-266-501(a), a healthcare facility is subject to Subsections R315-266-501(d)(1) and R315-266-501(d)(2) in lieu of Rules R315-262 through R315-265:

(1) Sections R315-266-502 and R315-266-505 through R315-266-508 with respect to the management of:

(i) non-creditable hazardous waste pharmaceuticals; and

(ii) potentially creditable hazardous waste pharmaceuticals if they are not destined for a reverse distributor.

(2) Subsection R315-266-502(a), and Sections R315-266-503, R315-266-505 through R315-266-507 and R315-266-509 with respect to the management of potentially creditable hazardous waste pharmaceuticals that are prescription pharmaceuticals and are destined for a reverse distributor.

(e) A reverse distributor is subject to Sections R315-266-505 through R315-266-510 in lieu of Rules R315-262 through R315-265 with respect to the management of hazardous waste pharmaceuticals.

(f) Hazardous waste pharmaceuticals generated or managed by entities other than healthcare facilities and reverse distributors, that is pharmaceutical manufacturers and reverse logistics centers, are not subject to Sections R315-266-500 through R315-266-510. Other generators are subject to Rule R315-262 for the generation and accumulation of hazardous wastes, including hazardous waste pharmaceuticals.

(g) The following are not subject to Rules R315-260 through R315-273, except as specified:

(1) Pharmaceuticals that are not solid waste, as defined by Section R315-261-2, because they are legitimately used or reused, for example, lawfully donated for their intended purpose, or reclaimed.

(2) Over-the-counter pharmaceuticals, dietary supplements, or homeopathic drugs that are not solid wastes, as defined by Section R315-261-2, because they have a reasonable expectation of being legitimately used or reused, for example, lawfully redistributed for their intended purpose, or reclaimed.

(3) Pharmaceuticals being managed in accordance with a recall strategy that has been approved by the Food and Drug Administration in accordance with 21 CFR part 7 subpart C. Sections R315-266-500 through R315-266-510 do apply to the management of the recalled hazardous waste pharmaceuticals after the Food and Drug Administration approves the destruction of the recalled items.

(4) Pharmaceuticals being managed in accordance with a recall corrective action plan that has been accepted by the Consumer Product Safety Commission in accordance with 16 CFR part 1115. Sections R315-266-500 through R315-266-510 do apply to the management of the recalled hazardous waste pharmaceuticals after the Consumer Product Safety Commission approves the destruction of the recalled items.

(5) Pharmaceuticals stored according to a preservation order, or during an investigation or judicial proceeding until after the preservation order, investigation, or judicial proceeding has concluded or a decision is made to discard the pharmaceuticals or both.

(6) Investigational new drugs for which an investigational new drug application is in effect in accordance with the Food and Drug Administration's regulations in 21 CFR part 312. Sections R315-266-500 through R315-266-510 do apply to the management of the investigational new drug after the decision is made to discard the investigational new drug or the Food and Drug Administration approves the destruction of the investigational new drug, if the investigational new drug is a hazardous waste.

(7) Household waste pharmaceuticals, including those that have been collected by an authorized collector, as defined by the Drug Enforcement Administration, provided the authorized collector complies with the conditional exemption in Subsections R315-266-506(a)(2) and R315-266-506(b).

R315-266-502. Hazardous Waste Pharmaceuticals -- Standards for Healthcare Facilities Managing Non-Creditable Hazardous Waste Pharmaceuticals.

(a) Notification and withdrawal from Sections R315-266-500 through R315-266-510 for healthcare facilities managing

hazardous waste pharmaceuticals.

(1) Notification. A healthcare facility shall notify the director, using the Site Identification Form, EPA Form 8700-12, that it is a healthcare facility operating under Sections R315-266-500 through R315-266-510. A healthcare facility is not required to fill out Box 10.B., Waste Codes for Federally Regulated Hazardous Waste, of the Site Identification Form with respect to its hazardous waste pharmaceuticals. A healthcare facility shall submit a separate notification, Site Identification Form, for each site or EPA identification number.

(i) A healthcare facility that already has an EPA identification number shall notify the director, using the Site Identification Form, EPA Form 8700-12, that it is a healthcare facility as part of its next Biennial Report, if it is required to submit one, or if not required to submit a Biennial Report, within 60 days of the effective date of Sections R315-266-500 through R315-266-510, or within 60 days of becoming subject to Sections R315-266-500 through R315-266-510.

(ii) A healthcare facility that does not have an EPA identification number shall get one by notifying the director, using the Site Identification Form, EPA Form 8700-12, that it is a healthcare facility as part of its next Biennial Report, if it is required to submit one, or if not required to submit a Biennial Report, within 60 days of the effective date of Sections R315-266-500 through R315-266-510, or within 60 days of becoming subject to Sections R315-266-500 through R315-266-510.

(iii) A healthcare facility shall keep a copy of its notification on file for as long as the healthcare facility is subject to Sections R315-266-500 through R315-266-510.

(2) Withdrawal. A healthcare facility that operated under Sections R315-266-500 through R315-266-510 but is no longer subject to Sections R315-266-500 through R315-266-510, because it is a very small quantity generator under Section R315-262-14, and elects to withdraw from Sections R315-266-500 through R315-266-510, shall notify the director using the Site Identification Form, EPA Form 8700-12, that it is no longer operating under Sections R315-266-500 through R315-266-510. A healthcare facility is not required to fill out Box 10.B., Waste Codes for Federally Regulated Hazardous Waste, of the Site Identification Form with respect to its hazardous waste pharmaceuticals. A healthcare facility shall submit a separate notification, Site Identification Form, for each EPA identification number.

(i) A healthcare facility shall submit the Site Identification Form notifying that it is withdrawing from Sections R315-266-500 through R315-266-510 before it begins operating under the conditional exemption of Section R315-262-14.

(ii) A healthcare facility shall keep a copy of its withdrawal on file for three years from the date of signature on the notification of its withdrawal.

(b) Training of personnel managing non-creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility shall ensure that any personnel that manage non-creditable hazardous waste pharmaceuticals are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

(c) Hazardous waste determination for non-creditable pharmaceuticals. A healthcare facility that generates a solid waste that is a non-creditable pharmaceutical shall determine whether that pharmaceutical is a hazardous waste pharmaceutical, for example, it exhibits a characteristic identified in Sections R315-261-20 through R315-261-24 or is listed in Sections R315-261-30 through R315-261-35, to determine whether the waste is subject to Sections R315-266-500 through R315-266-510. A healthcare facility may choose to manage its non-hazardous waste pharmaceuticals as non-creditable hazardous waste pharmaceuticals under Sections R315-266-500 through R315-266-510.

(d) Standards for containers used to accumulate non-creditable hazardous waste pharmaceuticals at healthcare facilities.

(1) A healthcare facility shall place non-creditable hazardous waste pharmaceuticals in a container that is structurally sound, compatible with its contents, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A healthcare facility that manages ignitable or reactive non-creditable hazardous waste pharmaceuticals, or that mixes or commingles incompatible non-creditable hazardous waste pharmaceuticals shall manage the container so that it does not have the potential to:

(i) generate extreme heat or pressure, fire or explosion, or violent reaction;

(ii) produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(iii) produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(iv) damage the structural integrity of the container of non-creditable hazardous waste pharmaceuticals; or

(v) through other like means threaten human health or the environment.

(3) A healthcare facility shall keep containers of non-creditable hazardous waste pharmaceuticals closed and secured in a manner that prevents unauthorized access to its contents.

(4) A healthcare facility may accumulate non-creditable hazardous waste pharmaceuticals and non-hazardous non-creditable waste pharmaceuticals in a container together, except that non-creditable hazardous waste pharmaceuticals prohibited from being combusted because of the dilution prohibition of Subsection R315-268-3(c), that is, metal-bearing waste codes listed in Section R315-268-57, unless one or more criteria in Subsections R315-268-3(c)(1) through R315-268-3(c)(6) are met, or because it is prohibited from being lab packed due to Subsection R315-268-42(c), that is, waste codes listed in Section R315-268-53, shall be accumulated in separate containers and labeled with the applicable EPA hazardous waste numbers, in other words the hazardous waste codes.

(e) Labeling containers used to accumulate non-creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility shall label or clearly mark each container of non-creditable hazardous waste pharmaceuticals with the phrase "Hazardous Waste Pharmaceuticals".

(f) Maximum accumulation time for non-creditable hazardous waste pharmaceuticals at healthcare facilities.

(1) A healthcare facility may accumulate non-creditable hazardous waste pharmaceuticals on-site for one year or less without a permit or having interim status.

(2) A healthcare facility that accumulates non-creditable hazardous waste pharmaceuticals on-site shall demonstrate the length of time that the non-creditable hazardous waste pharmaceuticals have been accumulating, starting from the date it first becomes a waste. A healthcare facility may make this demonstration by any of the following methods:

(i) marking or labeling the container of non-creditable hazardous waste pharmaceuticals with the date that the non-creditable hazardous waste pharmaceuticals became a waste;

(ii) maintaining an inventory system that identifies the date the non-creditable hazardous waste pharmaceuticals being accumulated first became a waste; or

(iii) placing the non-creditable hazardous waste pharmaceuticals in a specific area and identifying the earliest date that any of the non-creditable hazardous waste pharmaceuticals in the area became a waste.

(g) Land disposal restrictions for non-creditable hazardous waste pharmaceuticals. The non-creditable hazardous waste pharmaceuticals generated by a healthcare facility are subject to the land disposal restrictions of Rule R315-268. A healthcare facility that generates non-creditable hazardous waste pharmaceuticals shall comply with the land disposal restrictions in accordance with Subsection R315-268-7(a) requirements, except that it is not required to identify the hazardous waste numbers, in other words the hazardous waste codes, on the land disposal restrictions notification.

(h) Procedures for healthcare facilities for managing rejected shipments of non-creditable hazardous waste pharmaceuticals. A healthcare facility that sends a shipment of non-creditable hazardous waste pharmaceuticals to a designated facility with the understanding that the designated facility can accept and manage the waste, and later receives that shipment back as a rejected load in accordance with the manifest discrepancy requirements of Section R315-264-72 or R315-265-72 may accumulate the rejected non-creditable hazardous waste pharmaceuticals on-site for up to an additional 90 calendar days provided the rejected shipment is managed in accordance with Subsections R315-266-502(d) and R315-266-502(e). Upon receipt of the rejected shipment, the healthcare facility shall:

(1) sign either:

(i) item 18c of the original manifest, if the original manifest was used for the returned shipment; or

(ii) item 20 of the new manifest, if a new manifest was used for the returned shipment;

(2) provide the transporter a copy of the manifest;

(3) within 30 calendar days of receipt of the rejected shipment, send a copy of the manifest to the designated facility that returned the shipment to the healthcare facility; and

(4) within 90 calendar days of receipt of the rejected shipment, transport or offer for transport the returned shipment in accordance with the shipping standards of Subsection R315-266-508(a).

(i) Reporting by healthcare facilities for non-creditable hazardous waste pharmaceuticals.

(1) Biennial reporting by healthcare facilities. Healthcare facilities are not subject to biennial reporting requirements under Section R315-262-41, with respect to non-creditable hazardous waste pharmaceuticals managed under Sections R315-266-500 through R315-266-510.

(2) Exception reporting by healthcare facilities for a missing copy of the manifest.

(i) For shipments from a healthcare facility to a designated facility:

(A) If a healthcare facility does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 60 calendar days of the date the non-creditable hazardous waste pharmaceuticals were accepted by the initial transporter, the healthcare facility shall submit:

(I) a legible copy of the original manifest, indicating that the healthcare facility has not received confirmation of delivery, to the director; and

(II) a handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received and explaining the efforts taken to locate the non-creditable hazardous waste pharmaceuticals and the results of those efforts.

(B) Reserved.

(ii) For shipments rejected by the designated facility and shipped to an alternate facility:

(A) If a healthcare facility does not receive a copy of the manifest for a rejected shipment of the non-creditable hazardous waste pharmaceuticals that is forwarded by the designated facility to an alternate facility, using appropriate manifest procedures, with the signature of the owner or operator of the alternate facility, within 60 calendar days of the date the non-creditable hazardous waste was accepted by the initial transporter forwarding the shipment of non-creditable hazardous waste pharmaceuticals from the designated facility to the alternate facility, the healthcare facility shall submit:

(I) a legible copy of the original manifest, indicating that the healthcare facility has not received confirmation of delivery, to the director; and

(II) a handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received and explaining the efforts taken to locate the non-creditable hazardous waste pharmaceuticals and the results of those efforts.

(B) Reserved.

(3) Additional reports. The director may require healthcare facilities to furnish additional reports concerning the quantities and disposition of non-creditable hazardous waste pharmaceuticals.

(j) Recordkeeping by healthcare facilities for non-creditable hazardous waste pharmaceuticals.

(1) A healthcare facility shall keep a copy of each manifest signed in accordance with Subsection R315-262-23(a) for three years or until it receives a signed copy from the designated facility that received the non-creditable hazardous waste pharmaceuticals. This signed copy shall be kept as a record for at least three years from the date the waste was accepted by the initial transporter.

(2) A healthcare facility shall keep a copy of each exception report for a period of at least three years from the date of the report.

(3) A healthcare facility shall keep records of any test results, waste analyses, or other determinations made to support its hazardous waste determinations consistent with Subsection R315-262-11(f), for at least three years from the date the waste was last sent to on-site or off-site treatment, storage or disposal. A healthcare facility that manages its non-creditable non-hazardous waste pharmaceuticals as non-creditable hazardous waste pharmaceuticals is not required to keep documentation of hazardous waste determinations.

(4) The periods of retention referred to in Section R315-266-502 are extended automatically during any unresolved enforcement action regarding the regulated activity, or as requested by the director.

(5) Records shall be readily available upon request by an inspector.

(k) Response to spills of non-creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility shall immediately contain any spills of non-creditable hazardous waste pharmaceuticals and manage the spill clean-up materials as non-creditable hazardous waste pharmaceuticals in accordance with the requirements of Sections R315-266-500 through R315-266-510.

(l) Accepting non-creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator. A healthcare facility may accept non-creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator under Section R315-262-14, without a permit or without having interim status, provided the receiving healthcare facility:

(1) is under the control of the person, as defined in Section R315-260-10, that controls the very small quantity generator healthcare facility that is sending the non-creditable hazardous waste pharmaceuticals off-site, "control," for the purposes of Section R315-266-502, means the power to direct the policies of the healthcare facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate healthcare facilities on behalf of a different person as defined in Section R315-260-10 may not be considered to "control" the healthcare facilities, or has a contractual or other documented business relationship whereby the receiving healthcare facility supplies pharmaceuticals to the very small quantity generator healthcare facility;

(2) is operating under Sections R315-266-500 through R315-266-510 for the management of its non-creditable hazardous waste pharmaceuticals;

(3) manages the non-creditable hazardous waste pharmaceuticals that it receives from off site in compliance with Sections R315-266-500 through R315-266-510; and

(4) keeps records of the non-creditable hazardous waste pharmaceuticals shipments it receives from off site for three years from the date that the shipment is received.

R315-266-503. Hazardous Waste Pharmaceuticals -- Standards for Healthcare Facilities Managing Potentially Creditable Hazardous Waste Pharmaceuticals.

(a) Hazardous waste determination for potentially creditable pharmaceuticals. A healthcare facility that generates a solid waste that is a potentially creditable pharmaceutical shall determine whether the potentially creditable pharmaceutical is a potentially creditable hazardous waste pharmaceutical, for example, it is listed in Sections R315-261-30 through R315-261-35 or exhibits a characteristic identified in Sections R315-261-20 through R315-261-24. A healthcare facility may choose to manage its potentially creditable non-hazardous waste pharmaceuticals as potentially creditable hazardous waste pharmaceuticals under Sections R315-266-500 through R315-266-510.

(b) Accepting potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator. A healthcare facility may accept potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator under Section R315-262-14, without a permit or without having interim status, provided the receiving healthcare facility:

(1) is under the control of the person, as defined in Section R315-260-10, that controls the very small quantity generator healthcare facility that is sending the potentially creditable hazardous waste pharmaceuticals off site, "control," for the purposes of Section R315-266-503, means the power to direct the policies of the healthcare facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate healthcare facilities on behalf of a different person as defined in Section R315-260-10 may not be considered to "control" the healthcare facilities, or has a contractual or other documented business relationship whereby the receiving healthcare facility supplies pharmaceuticals to the very small quantity generator healthcare facility;

(2) is operating under Sections R315-266-500 through R315-266-510 for the management of its potentially creditable hazardous waste pharmaceuticals;

(3) manages the potentially creditable hazardous waste pharmaceuticals that it receives from off site in compliance with Sections R315-266-500 through R315-266-510; and

(4) keeps records of the potentially creditable hazardous waste pharmaceuticals shipments it receives from off site for three years from the date that the shipment is received.

(c) Prohibition. Healthcare facilities are prohibited from sending hazardous wastes other than potentially creditable hazardous waste pharmaceuticals to a reverse distributor.

(d) Biennial Reporting by healthcare facilities. Healthcare facilities are not subject to biennial reporting requirements under Section R315-262-41 with respect to potentially creditable hazardous waste pharmaceuticals managed under Sections R315-266-500 through R315-266-510.

(e) Recordkeeping by healthcare facilities.

(1) A healthcare facility that initiates a shipment of potentially creditable hazardous waste pharmaceuticals to a reverse distributor shall keep the following records, paper or electronic, for each shipment of potentially creditable hazardous waste pharmaceuticals for three years from the date of shipment:

(i) the confirmation of delivery; and

(ii) the shipping papers prepared in accordance with 49 CFR part 172 subpart C, if applicable.

(2) The periods of retention referred to in Section R315-266-503 are extended automatically during any unresolved enforcement action regarding the regulated activity, or as requested by the director.

(3) Records shall be readily available upon request by an inspector.

(f) Response to spills of potentially creditable hazardous waste pharmaceuticals at healthcare facilities. A healthcare facility shall immediately contain any spills of potentially creditable hazardous waste pharmaceuticals and manage the spill clean-up materials as non-creditable hazardous waste pharmaceuticals in accordance with Sections R315-266-500 through R315-266-510.

R315-266-504. Hazardous Waste Pharmaceuticals -- Healthcare Facilities That Are Very Small Quantity Generators for Both Hazardous Waste Pharmaceuticals and Non-Pharmaceutical Hazardous Waste That Are Not Operating Under Sections R315-266-500 Through R315-266-510.

(a) Potentially creditable hazardous waste pharmaceuticals. A healthcare facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may send its potentially creditable hazardous waste pharmaceuticals to a reverse distributor.

(b) Off-site collection of hazardous waste pharmaceuticals generated by a healthcare facility that is a very small quantity generator. A healthcare facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may send its hazardous waste pharmaceuticals off-site to another generator, provided:

(1) the receiving healthcare facility meets the conditions in Subsections R315-266-502(l) and R315-266-503(b), as applicable; or

(2) the very small quantity generator healthcare facility meets the conditions in Subsection R315-262-14(a)(5)(viii) and the receiving large quantity generator meets the conditions in Subsection R315-262-17(f).

(c) Long-term care facilities that are very small quantity generators. A long-term care facility that is a very small quantity generator for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste may dispose of its hazardous waste pharmaceuticals, excluding contaminated personal protective equipment or clean-up materials, in an on-site collection receptacle of an authorized collector, as defined by the Drug Enforcement Administration, that is registered with the Drug Enforcement Administration provided the contents are collected, stored, transported, destroyed and disposed of in compliance with applicable Drug Enforcement Administration regulations for controlled substances.

(d) Long-term care facilities with 20 beds or fewer. A long-term care facility with 20 beds or fewer is presumed to be a very small quantity generator subject to Section R315-262-14 for both hazardous waste pharmaceuticals and non-pharmaceutical hazardous waste and not subject to Sections R315-266-500 through R315-266-510, except for Sections R315-266-505 and R315-266-507 and the other optional requirements of Section R315-266-504. The director has the responsibility to demonstrate that a long-term care facility with 20 beds or fewer generates quantities of hazardous waste that are in excess of the very small quantity generator limits as defined in Section R315-260-10. A long-term care facility with more than 20 beds that operates as a very small quantity generator under Section R315-262-14 shall demonstrate that it generates quantities of hazardous waste that are within the very small quantity generator limits as defined by Section R315-260-10.

R315-266-505. Hazardous Waste Pharmaceuticals -- Prohibition of Sewering Hazardous Waste Pharmaceuticals.

Each healthcare facility, including very small quantity generators operating under Section R315-262-14 in lieu of Sections R315-266-500 through R315-266-510, and reverse distributors are prohibited from discharging hazardous waste pharmaceuticals to a sewer system that passes through to a publicly-owned treatment works. Healthcare facilities and reverse distributors remain subject to the prohibitions in 40 CFR 403.5(b)(1).

R315-266-506. Hazardous Waste Pharmaceuticals -- Conditional Exemptions for Hazardous Waste Pharmaceuticals That Are Also Controlled Substances and Household Waste Pharmaceuticals Collected by an Authorized Collector.

(a) Conditional exemptions. Provided the conditions of Subsection R315-266-506(b) are met, the following are exempt from Rules R315-262 through R315-273:

(1) hazardous waste pharmaceuticals that are also listed on a schedule of controlled substances by the Drug Enforcement Administration in 21 CFR part 1308; and

(2) household waste pharmaceuticals that are collected by an authorized collector, as defined by the Drug Enforcement Administration, registered with the Drug Enforcement Administration that commingles the household waste pharmaceuticals with controlled substances from an ultimate user, as defined by the Drug Enforcement Administration.

(b) Conditions for exemption. The hazardous waste pharmaceuticals shall be:

(1) managed in compliance with the sewer prohibition of Section R315-266-505; and

(2) collected, stored, transported, and disposed of in compliance with applicable Drug Enforcement Administration regulations for controlled substances; and

(3) destroyed by a method that Drug Enforcement Administration has publicly determined in writing to meet their non-retrievable standard of destruction or combusted at one of the following:

(i) a permitted large municipal waste combustor, subject to 40 CFR part 62 subpart FFF or applicable state plan for existing large municipal waste combustors, or 40 CFR part 60 subparts Eb for new large municipal waste combustors;

(ii) a permitted small municipal waste combustor, subject to 40 CFR part 62 subpart JJJ or applicable state plan for existing small municipal waste combustors, or 40 CFR part 60 subparts AAAA for new small municipal waste combustors;

(iii) a permitted hospital, medical and infectious waste incinerator, subject to 40 CFR part 62 subpart HHH or applicable

state plan for existing hospital, medical and infectious waste incinerators, or 40 CFR part 60 subpart Ec for new hospital, medical and infectious waste incinerators;

(iv) a permitted commercial and industrial solid waste incinerator, subject to 40 CFR part 62 subpart III or applicable state plan for existing commercial and industrial solid waste incinerators, or 40 CFR part 60 subpart CCCC for new commercial and industrial solid waste incinerators; or

(v) a permitted hazardous waste combustor subject to 40 CFR part 63 subpart EEE.

R315-266-507. Hazardous Waste Pharmaceuticals -- Residues of Hazardous Waste Pharmaceuticals in Empty Containers.

(a) Stock, dispensing and unit-dose containers. A stock bottle, dispensing bottle, vial, or ampule, not to exceed 1 liter or 10,000 pills, or a unit-dose container, such as a unit-dose packet, cup, wrapper, blister pack, or delivery device, is considered empty and the residues are not regulated as hazardous waste provided the pharmaceuticals have been removed from the stock bottle, dispensing bottle, vial, ampule, or the unit-dose container using the practices commonly employed to remove materials from that type of container.

(b) Syringes. A syringe is considered empty and the residues are not regulated as hazardous waste under Sections R315-266-500 through R315-266-510 provided the contents have been removed by fully depressing the plunger of the syringe. At healthcare facilities operating under Sections R315-266-500 through R315-266-510, if a syringe is not empty, the syringe shall be placed with its remaining hazardous waste pharmaceuticals into a container that is managed and disposed of as a non-creditable hazardous waste pharmaceutical under Sections R315-266-500 through R315-266-510 and any applicable federal, state, and local requirements for sharps containers and medical waste.

(c) Intravenous (IV) bags. An IV bag is considered empty and the residues are not regulated as hazardous waste provided the pharmaceuticals in the IV bag have been fully administered to a patient, or if the IV bag held non-acute hazardous waste pharmaceuticals and is empty as defined in Subsection R315-261(b)(1). At healthcare facilities operating under Sections R315-266-500 through R315-266-510, if an IV bag is not empty, the IV bag shall be placed with its remaining hazardous waste pharmaceuticals into a container that is managed and disposed of as a non-creditable hazardous waste pharmaceutical under Sections R315-266-500 through R315-266-510, unless the IV bag held non-acute hazardous waste pharmaceuticals and is empty as defined in Subsection R315-261-7(b)(1).

(d) Other containers, including delivery devices. At healthcare facilities operating under Sections R315-266-500 through R315-266-510, hazardous waste pharmaceuticals remaining in any other type of unused, partially administered, or fully administered containers shall be managed as non-creditable hazardous waste pharmaceuticals under Sections R315-266-500 through R315-266-510, unless the container held non-acute hazardous waste pharmaceuticals and is empty as defined in Subsection R315-261-7(b)(1) or R315-261-7(b)(2). This includes residues in inhalers, aerosol cans, nebulizers, tubes of ointments, gels, or creams.

R315-266-508. Hazardous Waste Pharmaceuticals -- Shipping Non-Creditable Hazardous Waste Pharmaceuticals from a Healthcare Facility or Evaluated Hazardous Waste Pharmaceuticals from a Reverse Distributor.

(a) Shipping non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. A healthcare facility shall ship non-creditable hazardous waste pharmaceuticals and a reverse distributor shall ship evaluated hazardous waste pharmaceuticals off-site to a designated facility, that is, a permitted or interim status treatment, storage, or disposal facility, in compliance with:

(1) the following pre-transport requirements, before transporting or offering for transport off-site:

(i) Packaging. Package the waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR parts 173, 178, and 180.

(ii) Labeling. Label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172 subpart E.

(iii) Marking.

(A) Mark each package of hazardous waste pharmaceuticals in accordance with the applicable Department of Transportation (DOT) regulations on hazardous materials under 49 CFR part 172 subpart D.

(B) Mark each container of 119 gallons or less used in the transportation in accordance with the requirements of 49 CFR 172.304 with the following words and information:

HAZARDOUS WASTE---Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Healthcare Facility's or Reverse distributor's Name and Address _____.

Healthcare Facility's or Reverse distributor's EPA Identification Number_____.

Manifest Tracking Number _____.

(C) Lab packs that will be incinerated in compliance with Subsection R315-268-42(c) are not required to be marked with EPA Hazardous Waste Numbers, that is, hazardous waste codes, except D004, D005, D006, D007, D008, D010, and D011, if applicable. A nationally recognized electronic system, such as bar coding or radio frequency identification tag, may be used to identify the applicable EPA hazardous waste numbers, that is, hazardous waste codes.

(iv) Placarding. Placard or offer the initial transporter the appropriate placards according to Department of Transportation regulations for hazardous materials under 49 CFR part 172 subpart F.

(2) the manifest requirements of Sections R315-262-20 through R315-262-27, except as follows:

(i) A healthcare facility shipping non-creditable hazardous waste pharmaceuticals is not required to list each applicable EPA hazardous waste number, in other words, hazardous waste codes, in Item 13 of EPA Form 8700-22.

(ii) A healthcare facility shipping non-creditable hazardous waste pharmaceuticals shall write either the word "PHARMS" or "PHRM" in Item 13 of EPA Form 8700-22.

(b) Exporting non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. A healthcare facility or reverse distributor that exports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to Sections R315-262-80 through R315-262-89.

(c) Importing non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. Any person that imports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to Sections R315-262-80 through R315-262-89. A healthcare facility or reverse distributor may not accept imported non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals unless they have a permit or interim status that allows them to accept hazardous waste from off site.

R315-266-509. Hazardous Waste Pharmaceuticals -- Shipping Potentially Creditable Hazardous Waste Pharmaceuticals from a Healthcare Facility or a Reverse Distributor to a Reverse Distributor.

(a) Shipping potentially creditable hazardous waste pharmaceuticals. A healthcare facility or a reverse distributor who transports or offers for transport potentially creditable hazardous waste pharmaceuticals off-site to a reverse distributor shall comply with applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 for any potentially creditable hazardous waste pharmaceutical that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in Rule R315-262. Because a potentially creditable hazardous waste pharmaceutical does not require a manifest, it is not considered hazardous waste under the Department of Transportation regulations.

(b) Delivery confirmation. Upon receipt of each shipment of potentially creditable hazardous waste pharmaceuticals, the receiving reverse distributor shall provide confirmation, paper or electronic, to the healthcare facility or reverse distributor that initiated the shipment that the shipment of potentially creditable hazardous waste pharmaceuticals has arrived at its destination and is under the custody and control of the reverse distributor.

(c) Procedures for if delivery confirmation is not received within 35 days. If a healthcare facility or reverse distributor initiates a shipment of potentially creditable hazardous waste pharmaceuticals to a reverse distributor and does not receive delivery confirmation within 35 calendar days from the date that the shipment of potentially creditable hazardous waste pharmaceuticals was sent, the healthcare facility or reverse distributor that initiated the shipment shall contact the carrier and the intended recipient, in other word the reverse distributor, promptly to report that the delivery confirmation was not received and to determine the status of the potentially creditable hazardous waste pharmaceuticals.

(d) Exporting potentially creditable hazardous waste pharmaceuticals. A healthcare facility or reverse distributor that sends potentially creditable hazardous waste pharmaceuticals to a foreign destination shall comply with the applicable sections of Sections R315-262-80 through R315-262-89, except the manifesting requirement of Subsection R315-262-83(c), in addition to Subsections R315-266-509(a) through R315-266-509(c).

(e) Importing potentially creditable hazardous waste pharmaceuticals. Any person that imports potentially creditable hazardous waste pharmaceuticals into the United States is subject to Subsections R315-266-509(a) through R315-266-509(c) in lieu of Sections R315-262-80 through R315-262-89. Immediately after the potentially creditable hazardous waste pharmaceuticals enter the United States, they are subject to the applicable requirements of Sections R315-266-500 through R315-266-510.

R315-266-510. Hazardous Waste Pharmaceuticals -- Standards for the Management of Potentially Creditable Hazardous Waste Pharmaceuticals and Evaluated Hazardous Waste Pharmaceuticals at Reverse Distributors.

A reverse distributor may accept potentially creditable hazardous waste pharmaceuticals from off site and accumulate potentially creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals on-site without a hazardous waste permit or without having interim status, if the reverse distributor complies with the following conditions:

(a) Standards for reverse distributors managing potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

(1) Notification. A reverse distributor shall notify the director, using the Site Identification Form, EPA Form 8700-12, that it is a reverse distributor operating under Sections R315-266-500 through R315-266-510.

(i) A reverse distributor that already has an EPA identification number shall notify the director, using the Site Identification Form, EPA Form 8700-12, that it is a reverse distributor, as defined in Section R315-266-500, within 60 days of the effective date of Sections R315-266-500 through R315-266-510, or within 60 days of becoming subject to Sections R315-266-500 through R315-266-510.

(ii) A reverse distributor that does not have an EPA identification number shall get one by notifying the director, using the Site Identification Form, EPA Form 8700-12, that it is a reverse distributor, as defined in Section R315-266-500, within 60 days of the effective date of Sections R315-266-500 through R315-266-510, or within 60 days of becoming subject to Sections R315-266-500 through R315-266-510.

(2) Inventory by the reverse distributor. A reverse distributor shall maintain a current inventory of the potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals that are accumulated on-site.

(i) A reverse distributor shall inventory each potentially creditable hazardous waste pharmaceutical within 30 calendar days of each waste arriving at the reverse distributor.

(ii) The inventory shall include the identity, for example, name or national drug code, and quantity of each potentially creditable hazardous waste pharmaceutical and evaluated hazardous waste pharmaceutical.

(iii) If the reverse distributor already meets the inventory requirements of Subsection R315-266-510(a)(2) because of other regulatory requirements, such as state board of pharmacy regulations, the facility is not required to provide a separate inventory pursuant to Section R315-266-510.

(3) Evaluation by a reverse distributor that is not a manufacturer. A reverse distributor that is not a pharmaceutical manufacturer shall evaluate a potentially creditable hazardous waste pharmaceutical within 30 calendar days of the waste arriving at the reverse distributor to establish whether it is destined for another reverse distributor for further evaluation or verification of manufacturer credit or for a permitted or interim status treatment, storage, or disposal facility.

(i) A potentially creditable hazardous waste pharmaceutical that is destined for another reverse distributor is still considered a "potentially creditable hazardous waste pharmaceutical" and shall be managed in accordance with Subsection R315-266-510(b).

(ii) A potentially creditable hazardous waste pharmaceutical that is destined for a permitted or interim status treatment, storage or disposal facility is considered an "evaluated hazardous waste pharmaceutical" and shall be managed in accordance with Subsection R315-266-501(c).

(4) Evaluation by a reverse distributor that is a manufacturer. A reverse distributor that is a pharmaceutical manufacturer shall evaluate a potentially creditable hazardous waste pharmaceutical to verify manufacturer credit within 30 calendar days of the waste arriving at the facility and following the evaluation shall manage the evaluated hazardous waste pharmaceuticals in accordance with Subsection R315-266-501(c).

(5) Maximum accumulation time for hazardous waste pharmaceuticals at a reverse distributor.

(i) A reverse distributor may accumulate potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals on-site for 180 calendar days or less. The 180 days start after the potentially creditable hazardous waste pharmaceutical has been evaluated and applies to any hazardous waste pharmaceuticals accumulated on-site, regardless of whether they are destined for another reverse distributor, that is potentially creditable hazardous waste pharmaceuticals, or a permitted or interim status treatment, storage, or disposal facility, that is evaluated hazardous waste pharmaceuticals.

(ii) Aging pharmaceuticals. Unexpired pharmaceuticals that are otherwise creditable but are awaiting their expiration date, in other words, aging in a holding morgue, can be accumulated for up to 180 days after the expiration date, except that the unexpired pharmaceuticals are managed in accordance with Subsection R315-266-510(a) and the container labeling and management standards in Subsections R315-266-510(c)(4)(i) through R315-266-510(c)(4)(vi).

(6) Security at the reverse distributor facility. A reverse distributor shall prevent unknowing entry and minimize the possibility for the unauthorized entry into the portion of the facility where potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals are kept.

(i) Examples of methods that may be used to prevent unknowing entry and minimize the possibility for unauthorized entry include:

(A) a 24-hour continuous monitoring surveillance system;

(B) an artificial barrier such as a fence; or

(C) a means to control entry, such as keycard access.

(ii) If the reverse distributor already meets the security requirements of Subsection R315-266-510(a)(6) because of other regulatory requirements, such as Drug Enforcement Administration or state board of pharmacy regulations, the facility is not required to provide separate security measures pursuant to Section R315-266-510.

(7) Contingency plan and emergency procedures at a reverse distributor. A reverse distributor that accepts potentially creditable hazardous waste pharmaceuticals from off-site shall prepare a contingency plan and comply with the other requirements of Sections R315-262-250 through R315-262-265.

(8) Closure of a reverse distributor. If closing an area where a reverse distributor accumulates potentially creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals, the reverse distributor shall comply with Subsections R315-262-17(a)(8)(ii) and R315-262-17(a)(8)(iii).

(9) Reporting by a reverse distributor.

(i) Unauthorized waste report. A reverse distributor shall submit an unauthorized waste report if the reverse distributor receives waste from off site that it is not authorized to receive, for example, non-pharmaceutical hazardous waste, regulated medical waste. The reverse distributor shall prepare and submit an unauthorized waste report to the director within 45 calendar days after the unauthorized waste arrives at the reverse distributor and shall send a copy of the unauthorized waste report to the healthcare facility, or other entity, that sent the unauthorized waste. The reverse distributor shall manage the unauthorized waste in accordance with applicable rules. The unauthorized waste report shall be signed by the owner or operator of the reverse distributor, or its authorized representative, and contain the following information:

(A) the EPA identification number, name and address of the reverse distributor;

(B) the date the reverse distributor received the unauthorized waste;

(C) the EPA identification number, name, and address of the healthcare facility, or other entity, that shipped the unauthorized waste, if available;

(D) a description and the quantity of each unauthorized waste the reverse distributor received;

(E) the method of treatment, storage, or disposal for each unauthorized waste; and

(F) a brief explanation of why the waste was unauthorized, if known.

(ii) Additional reports. The director may require reverse distributors to furnish additional reports concerning the quantities and disposition of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

(10) Recordkeeping by reverse distributors. A reverse distributor shall keep certain records, paper or electronic, readily available upon request by an inspector. The periods of retention referred to in Section R315-266-510 are extended automatically

during any unresolved enforcement action regarding the regulated activity, or as requested by the director. A reverse distributor shall keep the following records:

(i) a copy of its notification on file for as long as the facility is subject to Sections R315-266-500 through R315-266-510;

(ii) a copy of the delivery confirmation and the shipping papers for each shipment of potentially creditable hazardous waste pharmaceuticals that it receives, and a copy of each unauthorized waste report, for at least three years from the date the shipment arrives at the reverse distributor; and

(iii) a copy of its current inventory for as long as the facility is subject to Sections R315-266-500 through R315-266-510.

(b) Additional standards for reverse distributors managing potentially creditable hazardous waste pharmaceuticals destined for another reverse distributor. A reverse distributor that does not have a permit or interim status shall comply with the following conditions, in addition to the requirements in Subsection R315-266-510(a), for the management of potentially creditable hazardous waste pharmaceuticals that are destined for another reverse distributor for further evaluation or verification of manufacturer credit:

(1) A reverse distributor that receives potentially creditable hazardous waste pharmaceuticals from a healthcare facility shall send those potentially creditable hazardous waste pharmaceuticals to another reverse distributor within 180 calendar days after the potentially creditable hazardous waste pharmaceuticals have been evaluated or follow Subsection R315-266-510(c) for evaluated hazardous waste pharmaceuticals.

(2) A reverse distributor that receives potentially creditable hazardous waste pharmaceuticals from another reverse distributor shall send those potentially creditable hazardous waste pharmaceuticals to a reverse distributor that is a pharmaceutical manufacturer within 180 calendar days after the potentially creditable hazardous waste pharmaceuticals have been evaluated or follow Subsection R315-266-510(c) for evaluated hazardous waste pharmaceuticals.

(3) A reverse distributor shall ship potentially creditable hazardous waste pharmaceuticals destined for another reverse distributor in accordance with Section R315-266-509.

(4) Recordkeeping by reverse distributors. A reverse distributor shall keep certain records, paper or electronic, readily available upon request by an inspector for each shipment of potentially creditable hazardous waste pharmaceuticals that it initiates to another reverse distributor, for at least three years from the date of shipment. The periods of retention referred to in Section R315-266-510 are extended automatically during any unresolved enforcement action regarding the regulated activity, or as requested by the director. A reverse distributor shall keep the following records:

(i) the confirmation of delivery; and

(ii) the DOT shipping papers prepared in accordance with 49 CFR part 172 subpart C, if applicable.

(c) Additional standards for reverse distributors managing evaluated hazardous waste pharmaceuticals. A reverse distributor that does not have a permit or interim status shall comply with the following conditions, in addition to the requirements of Subsection R315-266-510(a), for the management of evaluated hazardous waste pharmaceuticals:

(1) Accumulation area at the reverse distributor. A reverse distributor shall designate an on-site accumulation area where it will accumulate evaluated hazardous waste pharmaceuticals.

(2) Inspections of on-site accumulation area. A reverse distributor shall inspect its on-site accumulation area at least once each seven calendar days, looking at containers for leaks and for deterioration caused by corrosion or other factors, as well as for signs of diversion.

(3) Personnel training at a reverse distributor. Personnel at a reverse distributor that handle evaluated hazardous waste pharmaceuticals are subject to the training requirements of Subsection R315-262-17(a)(7).

(4) Labeling and management of containers at on-site accumulation areas. A reverse distributor accumulating evaluated hazardous waste pharmaceuticals in containers in an on-site accumulation area shall:

(i) label the containers with the words, "hazardous waste pharmaceuticals";

(ii) ensure the containers are in good condition and managed to prevent leaks;

(iii) use containers that are made of or lined with materials that will not react with, and are otherwise compatible with, the evaluated hazardous waste pharmaceuticals, so that the ability of the container to contain the waste is not impaired;

(iv) keep containers closed, if holding liquid or gel evaluated hazardous waste pharmaceuticals. If the liquid or gel evaluated hazardous waste pharmaceuticals are in their original, intact, sealed packaging, or repackaged, intact, sealed packaging, they are considered to meet the closed container standard;

(v) manage any container of ignitable or reactive evaluated hazardous waste pharmaceuticals, or any container of commingled incompatible evaluated hazardous waste pharmaceuticals so that the container does not have the potential to:

(A) generate extreme heat or pressure, fire or explosion, or violent reaction;

(B) produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(C) produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(D) damage the structural integrity of the container of hazardous waste pharmaceuticals; or

(E) through other like means threaten human health or the environment; and

(vi) accumulate evaluated hazardous waste pharmaceuticals that are prohibited from being combusted because of the dilution prohibition of Subsection R315-268-3(c), that is, metal-bearing waste codes listed in Section R315-268-57, unless one or more criteria in Subsections R315-268-3(c)(1) through R315-268-3(c)(6) are met, or because it is prohibited from being lab packed to due to Subsection R315-26-42(c), that is, waste codes listed in Section R315-268-52, in separate containers from other evaluated hazardous waste pharmaceuticals at the reverse distributor.

(5) Hazardous waste numbers. Before shipping evaluated hazardous waste pharmaceuticals off site, each container shall be marked with the applicable EPA hazardous waste numbers, in other words hazardous waste codes. A nationally recognized electronic system, such as bar coding or radio frequency identification tag, may be used to identify the applicable EPA hazardous waste

numbers, in other words, hazardous waste codes.

(6) Shipments. A reverse distributor shall ship evaluated hazardous waste pharmaceuticals that are destined for a permitted or interim status treatment, storage or disposal facility in accordance with the applicable shipping standards in Subsection R315-266-508(a) or R315-266-508(b).

(7) Procedures for a reverse distributor for managing rejected shipments. A reverse distributor that sends a shipment of evaluated hazardous waste pharmaceuticals to a designated facility with the understanding that the designated facility can accept and manage the waste, and later receives that shipment back as a rejected load in accordance with the manifest discrepancy requirements of Section R315-264-72 or R315-265-72, may accumulate the rejected evaluated hazardous waste pharmaceuticals on-site for up to an additional 90 calendar days in the on-site accumulation area provided the rejected shipment is managed in accordance with Subsections R315-266-510(a) and R315-266-510(c). Upon receipt of the rejected shipment, the reverse distributor shall:

(i) sign either:

(A) item 18c of the original manifest, if the original manifest was used for the returned shipment; or

(B) item 20 of the new manifest, if a new manifest was used for the returned shipment;

(ii) provide the transporter a copy of the manifest;

(iii) within 30 calendar days of receipt of the rejected shipment of the evaluated hazardous waste pharmaceuticals, send a copy of the manifest to the designated facility that returned the shipment to the reverse distributor; and

(iv) within 90 calendar days of receipt of the rejected shipment, transport or offer for transport the returned shipment of evaluated hazardous waste pharmaceuticals in accordance with the applicable shipping standards of Subsection R315-266-508(a) or R315-266-508(b).

(8) Land disposal restrictions. Evaluated hazardous waste pharmaceuticals are subject to the land disposal restrictions of Rule R315-268. A reverse distributor that accepts potentially creditable hazardous waste pharmaceuticals from off-site shall comply with the land disposal restrictions in accordance with the requirements of Subsection R315-268-7(a).

(9) Reporting by a reverse distributor for evaluated hazardous waste pharmaceuticals.

(i) Biennial reporting by a reverse distributor. A reverse distributor that ships evaluated hazardous waste pharmaceuticals off-site shall prepare and submit a single copy of a biennial report to the director by March 1 of each even numbered year in accordance with Section R315-262-41.

(ii) Exception reporting by a reverse distributor for a missing copy of the manifest.

(A) For shipments from a reverse distributor to a designated facility.

(I) If a reverse distributor does not receive a copy of the manifest with the signature of the owner or operator of the designated facility within 35 calendar days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter, the reverse distributor shall contact the transporter or the owner or operator of the designated facility to determine the status of the evaluated hazardous waste pharmaceuticals.

(II) A reverse distributor shall submit an exception report to the director if it has not received a copy of the manifest with the signature of the owner or operator of the designated facility within 45 calendar days of the date the evaluated hazardous waste pharmaceutical was accepted by the initial transporter. The exception report shall include:

(1) a legible copy of the manifest for which the reverse distributor does not have confirmation of delivery; and

(2) a cover letter signed by the reverse distributor, or its authorized representative, explaining the efforts taken to locate the evaluated hazardous waste pharmaceuticals and the results of those efforts.

(B) For shipments rejected by the designated facility and shipped to an alternate facility.

(I) A reverse distributor that does not receive a copy of the manifest with the signature of the owner or operator of the alternate facility within 35 calendar days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter shall contact the transporter or the owner or operator of the alternate facility to determine the status of the hazardous waste. The 35-day time frame begins the date the evaluated hazardous waste pharmaceuticals are accepted by the transporter forwarding the hazardous waste shipment from the designated facility to the alternate facility.

(II) A reverse distributor shall submit an exception report to the director if it has not received a copy of the manifest with the signature of the owner or operator of the alternate facility within 45 calendar days of the date the evaluated hazardous waste pharmaceuticals were accepted by the initial transporter. The 45-day timeframe begins the date the evaluated hazardous waste pharmaceuticals are accepted by the transporter forwarding the hazardous waste pharmaceutical shipment from the designated facility to the alternate facility. The exception report shall include:

(1) a legible copy of the manifest for which the reverse distributor does not have confirmation of delivery; and

(2) a cover letter signed by the reverse distributor, or its authorized representative, explaining the efforts taken to locate the evaluated hazardous waste pharmaceuticals and the results of those efforts.

(10) Recordkeeping by a reverse distributor for evaluated hazardous waste pharmaceuticals.

(i) A reverse distributor shall keep a log, written or electronic, of the inspections of the on-site accumulation area, required by Subsection R315-266-510(c)(2). This log shall be kept as a record for at least three years from the date of the inspection.

(ii) A reverse distributor shall keep a copy of each manifest signed in accordance with Subsection R315-262-23(a) for three years or until it receives a signed copy from the designated facility that received the evaluated hazardous waste pharmaceutical. This signed copy shall be kept as a record for at least three years from the date the evaluated hazardous waste pharmaceutical was accepted by the initial transporter.

(iii) A reverse distributor shall keep a copy of each biennial report for at least three years from the due date of the report.

(iv) A reverse distributor shall keep a copy of each exception report for at least three years from the submission of the report.

(v) A reverse distributor shall keep records to document personnel training, in accordance with Subsection R315-262-

17(a)(7)(iv).

(vi) Records shall be readily available upon request by an inspector. The periods of retention referred to in Section R315-266-510 are extended automatically during any unresolved enforcement action regarding the regulated activity, or as requested by the director.

(d) When a reverse distributor shall have a permit. A reverse distributor is an operator of a hazardous waste treatment, storage, or disposal facility and is subject to the requirements of Rules R315-264, and R315-265, and the permit requirements of Rule R315-270, if the reverse distributor:

(1) does not meet the conditions of Section R315-266-510;

(2) accepts manifested hazardous waste from off site; or

(3) treats or disposes of hazardous waste pharmaceuticals on-site.

R315-266-600. Appendix I to Rule R315-266 -- Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals.

Appendix I of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

R315-266-601. Appendix II to Rule R315-266 -- Tier I Feed Rate Screening Limits for Total Chlorine.

Table

Terrain-adjusted effective stack height (m)	Noncomplex Terrain Urban (g/hr)	Noncomplex Terrain Rural (g/hr)	Complex Terrain (g/hr)
4	8.2E+01	4.2E+01	1.9E+01
6	9.1E+01	4.8E+01	2.8E+01
8	1.0E+02	5.3E+01	4.1E+01
10	1.2E+02	6.2E+01	5.8E+01
12	1.3E+02	7.7E+01	7.2E+01
14	1.5E+02	9.1E+01	9.1E+01
16	1.7E+02	1.2E+02	1.1E+02
18	1.9E+02	1.4E+02	1.2E+02
20	2.1E+02	1.8E+02	1.3E+02
22	2.4E+02	2.3E+02	1.4E+02
24	2.7E+02	2.9E+02	1.6E+02
26	3.1E+02	3.7E+02	1.7E+02
28	3.5E+02	4.7E+02	1.9E+02
30	3.9E+02	5.8E+02	2.1E+02
35	5.3E+02	9.6E+02	2.6E+02
40	6.2E+02	1.4E+03	3.3E+02
45	8.2E+02	2.0E+03	4.0E+02
50	1.1E+03	2.6E+03	4.8E+02
55	1.3E+03	3.5E+03	6.2E+02
60	1.6E+03	4.6E+03	7.7E+02
65	2.0E+03	6.2E+03	9.1E+02
70	2.3E+03	7.2E+03	1.1E+03
75	2.5E+03	8.6E+03	1.2E+03
80	2.9E+03	1.0E+04	1.3E+03
85	3.3E+03	1.2E+04	1.4E+03
90	3.7E+03	1.4E+04	1.6E+03
95	4.2E+03	1.7E+04	1.8E+03
100	4.8E+03	2.1E+04	2.0E+03
105	5.3E+03	2.4E+04	2.3E+03
110	6.2E+03	2.9E+04	2.5E+03
115	7.2E+03	3.5E+04	2.8E+03
120	8.2E+03	4.1E+04	3.2E+03

R315-266-602. Appendix III to Rule R315-266 -- Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride.

Appendix III of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

R315-266-603. Appendix IV to Rule R315-266 -- Reference Air Concentrations*.

Table

Constituent	CAS No.	RAC (ug/m^3)
Acetaldehyde	75-07-0	10
Acetonitrile	75-05-8	10
Acetophenone	98-86-2	100
Acrolein	107-02-8	20
Aldicarb	116-06-3	1
Aluminum Phosphide	20859-73-8	0.3
Allyl Alcohol	107-18-6	5
Antimony	7440-36-0	0.3
Barium	7440-39-3	50
Barium Cyanide	542-62-1	50
Bromomethane	74-83-9	0.8
Calcium Cyanide	592-01-8	30

Carbon Disulfide	75-15-0	200
Chloral	75-87-6	2
Chlorine (free)		0.4
2-Chloro-1,3-butadiene	126-99-8	3
Chromium III	16065-83-1	1000
Copper Cyanide	544-92-3	5
Cresols	1319-77-3	50
Cumene	98-82-8	1
Cyanide (free)	57-12-15	20
Cyanogen	460-19-5	30
Cyanogen Bromide	506-68-3	80
Di-n-butyl Phthalate	84-74-2	100
o-Dichlorobenzene	95-50-1	10
p-Dichlorobenzene	106-46-7	10
Dichlorodifluoromethane	75-71-8	200
2,4-Dichlorophenol	120-83-2	3
Diethyl Phthalate	84-66-2	800
Dimethoate	60-51-5	0.8
2,4-Dinitrophenol	51-28-5	2
Dinoseb	88-85-7	0.9
Diphenylamine	122-39-4	20
Endosulfan	115-29-1	0.05
Endrin	72-20-8	0.3
Fluorine	7782-41-4	50
Formic Acid	64-18-6	2000
Glycidyaldehyde	765-34-4	0.3
Hexachlorocyclopentadiene	77-47-4	5
Hexachlorophene	70-30-4	0.3
Hydrocyanic Acid	74-90-8	20
Hydrogen Chloride	7647-01-1	7
Hydrogen Sulfide	7783-06-4	3
Isobutyl Alcohol	78-83-1	300
Lead	7439-92-1	0.09
Maleic Anhydride	108-31-6	100
Mercury	7439-97-6	0.3
Methacrylonitrile	126-98-7	0.1
Methomyl	16752-77-5	20
Methoxychlor	72-43-5	50
Methyl Chlorocarbonate	79-22-1	1000
Methyl Ethyl Ketone	78-93-3	80
Methyl Parathion	298-00-0	0.3
Nickel Cyanide	557-19-7	20
Nitric Oxide	10102-43-9	100
Nitrobenzene	98-95-3	0.8
Pentachlorobenzene	608-93-5	0.8
Pentachlorophenol	87-86-5	30
Phenol	108-95-2	30
M-Phenylenediamine	108-45-2	5
Phenylmercuric Acetate	62-38-4	0.075
Phosphine	7803-51-2	0.3
Phthalic Anhydride	85-44-9	2000
Potassium Cyanide	151-50-8	50
Potassium Silver Cyanide	506-61-6	200
Pyridine	110-86-1	1
Selenious Acid	7783-60-8	3
Selenourea	630-10-4	5
Silver	7440-22-4	3
Silver Cyanide	506-64-9	100
Sodium Cyanide	143-33-9	30
Strychnine	57-24-9	0.3
1,2,4,5-Tetrachlorobenzene	95-94-3	0.3
2,3,4,6-Tetrachlorophenol	58-90-2	30
Tetraethyl Lead	78-00-2	0.0001
Tetrahydrofuran	109-99-9	10
Thallic Oxide	1314-32-5	0.3
Thallium	7440-28-0	0.5
Thallium (I) Acetate	563-68-8	0.5
Thallium (I) Carbonate	6533-73-9	0.3
Thallium (I) Chloride	7791-12-0	0.3
Thallium (I) Nitrate	10102-45-1	0.5
Thallium Selenite	12039-52-0	0.5
Thallium (I) Sulfate	7446-18-6	0.075
Thiram	137-26-8	5
Toluene	108-88-3	300
1,2,4-Trichlorobenzene	120-82-1	20
Trichloromonofluoromethane	75-69-4	300
2,4,5-Trichlorophenol	95-95-4	100
Vanadium Pentoxide	1314-62-1	20
Warfarin	81-81-2	0.3
Xylenes	1330-20-7	80
Zinc Cyanide	557-21-1	50
Zinc Phosphide	1314-84-7	0.3

*The RAC for other appendix VIII Rule R315-261 constituents not

listed herein or in appendix V of Rule R315-266 is 0.1 ug/m^3.

R315-266-604. Appendix V to Rule R315-266 -- Risk Specific Doses.

Table

Constituent	CAS No.	Unit risk (m3/microg)	RsD (microg/m3)
Acrylamide	79-06-1	1.3E-03	7.7E-03
Acrylonitrile	107-13-1	6.8E-05	1.5E-01
Aldrin	309-00-2	4.9E-03	2.0E-03
Aniline	62-53-3	7.4E-06	1.4E+00
Arsenic	7440-38-2	4.3E-03	2.3E-03
Benz(a)anthracene	56-55-3	8.9E-04	1.1E-02
Benzene	71-43-2	8.3E-06	1.2E+00
Benzidine	92-87-5	6.7E-02	1.5E-04
Benzo(a)pyrene	50-32-8	3.3E-03	3.0E-03
Beryllium	7440-41-7	2.4E-03	4.2E-03
Bis(2-chloroethyl) ether	111-44-4	3.3E-04	3.0E-02
Bis(chloromethyl)ether	542-88-1	6.2E-02	1.6E-04
Bis(2-ethylhexyl) -phthalate	117-81-7	2.4E-07	4.2E+01
1,3-Butadiene	106-99-0	2.8E-04	3.6E-02
Cadmium	7440-43-9	1.8E-03	5.6E-03
Carbon Tetrachloride	56-23-5	1.5E-05	6.7E-01
Chlordane	57-74-9	3.7E-04	2.7E-02
Chloroform	67-66-3	2.3E-05	4.3E-01
Chloromethane	74-87-3	3.6E-06	2.8E+00
Chromium VI	7440-47-3	1.2E-02	8.3E-04
DDT	50-29-3	9.7E-05	1.0E-01
Dibenz(a,h)anthracene	53-70-3	1.4E-02	7.1E-04
1,2-Dibromo-3 -chloropropane	96-12-8	6.3E-03	1.6E-03
1,2-Dibromoethane	106-93-4	2.2E-04	4.5E-02
1,1-Dichloroethane	75-34-3	2.6E-05	3.8E-01
1,2-Dichloroethane	107-06-2	2.6E-05	3.8E-01
1,1-Dichloroethylene	75-35-4	5.0E-05	2.0E-01
1,3-Dichloropropene	542-75-6	3.5E-01	2.9E-05
Dieldrin	60-57-1	4.6E-03	2.2E-03
Diethylstilbestrol	56-53-1	1.4E-01	7.1E-05
Dimethylnitrosamine	62-75-9	1.4E-02	7.1E-04
2,4-Dinitrotoluene	121-14-2	8.8E-05	1.1E-01
1,2-Diphenylhydrazine	122-66-7	2.2E-04	4.5E-02
1,4-Dioxane	123-91-1	1.4E-06	7.1E+00
Epichlorohydrin	106-89-8	1.2E-06	8.3E+00
Ethylene Oxide	75-21-8	1.0E-04	1.0E-01
Ethylene Dibromide	106-93-4	2.2E-04	4.5E-02
Formaldehyde	50-00-0	1.3E-05	7.7E-01
Heptachlor	76-44-8	1.3E-03	7.7E-03
Heptachlor Epoxide	1024-57-3	2.6E-03	3.8E-03
Hexachlorobenzene	118-74-1	4.9E-04	2.0E-02
Hexachlorobutadiene	87-68-3	2.0E-05	5.0E-01
Alpha-hexachloro -cyclohexane	319-84-6	1.8E-03	5.6E-03
Beta-hexachloro -cyclohexane	319-85-7	5.3E-04	1.9E-02
Gamma-hexachloro -cyclohexane	58-89-9	3.8E-04	2.6E-02
Hexachlorocyclo -hexane, Technical		5.1E-04	2.0E-02
Hexachlorodibenzo- p-dioxin (1,2 Mixture)		1.3E+0	7.7E-06
Hexachloroethane	67-72-1	4.0E-06	2.5E+00
Hydrazine	302-01-2	2.9E-03	3.4E-03
Hydrazine Sulfate	302-01-2	2.9E-03	3.4E-03
3-Methylcholanthrene	56-49-5	2.7E-03	3.7E-03
Methyl Hydrazine	60-34-4	3.1E-04	3.2E-02
Methylene Chloride	75-09-2	4.1E-06	2.4E+00
4,4'-Methylene-bis-2 -chloroaniline	101-14-4	4.7E-05	2.1E-01
Nickel	7440-02-0	2.4E-04	4.2E-02
Nickel Refinery Dust	7440-02-0	2.4E-04	4.2E-02
Nickel Subsulfide	12035-72-2	4.8E-04	2.1E-02
2-Nitropropane	79-46-9	2.7E-02	3.7E-04
N-Nitroso-n-butylamine	924-16-3	1.6E-03	6.3E-03
N-Nitroso-n-methylurea	684-93-5	8.6E-02	1.2E-04
N-Nitrosodiethylamine	55-18-5	4.3E-02	2.3E-04
N-Nitrosopyrrolidine	930-55-2	6.1E-04	1.6E-02
Pentachloronitrobenzene	82-68-8	7.3E-05	1.4E-01
PCBs	1336-36-3	1.2E-03	8.3E-03

Pronamide 23950-58-5 4.6E-06 2.2E+00
Reserpine 50-55-5 3.0E-03 3.3E-03
2,3,7,8-Tetrachloro -dibenzo-p-dioxin 1746-01-6 4.5E+01 2.2E-07
1,1,2,2-Tetrachloroethane 79-34-5 5.8E-05 1.7E-01
Tetrachloroethylene 127-18-4 4.8E-07 2.1E+01
Thiourea 62-56-6 5.5E-04 1.8E-02
1,1,2-Trichloroethane 79-00-5 1.6E-05 6.3E-01
Trichloroethylene 79-01-6 1.3E-06 7.7E+00
2,4,6-Trichlorophenol 88-06-2 5.7E-06 1.8E+00
Toxaphene 8001-35-2 3.2E-04 3.1E-02
Vinyl Chloride 75-01-4 7.1E-06 1.4E+00

R315-266-605. Appendix VI to Rule R315-266 -- Stack Plume Rise.

Appendix VI of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

R315-266-606. Appendix VII to Rule R315-266 -- Health-Based Limits for Exclusion of Waste-Derived Residues.

Table

Metals -- TCLP Extract Concentration Limits.

Constituent	CAS No.	Concentration limits (mg/L)
Antimony	7440-36-0	1xE+00
Arsenic	7440-38-2	5xE+00
Barium	7440-39-3	1xE+02
Beryllium	7440-41-7	7xE-03
Cadmium	7440-43-9	1xE+00
Chromium	7440-47-3	5xE+00
Lead	7439-92-1	5xE+00
Mercury	7439-97-6	2xE-01
Nickel	7440-02-0	7xE+01
Selenium	7782-49-2	1xE+00
Silver	7440-22-4	5xE+00
Thallium	7440-28-0	7xE+00

Nonmetals -- Residue Concentration Limits

Constituent	CAS No.	Concentration limits for residues (mg/kg)
Acetonitrile	75-05-8	2xE-01
Acetophenone	98-86-2	4xE+00
Acrolein	107-02-8	5xE-01
Acrylamide	79-06-1	2xE-04
Acrylonitrile	107-13-1	7xE-04
Aldrin	309-00-2	2xE-05
Allyl alcohol	107-18-6	2xE-01
Aluminum phosphide	20859-73-8	1xE-02
Aniline	62-53-3	6xE-02
Barium cyanide	542-62-1	1xE+00
Benz(a)anthracene	56-55-3	1xE-04
Benzene	71-43-2	5xE-03
Benzidine	92-87-5	1xE-06
Bis(2-chloroethyl) ether	111-44-4	3xE-04
Bis(chloroethyl) ether	542-88-1	2xE-06
Bis(2-ethylhexyl) phthalate	117-81-7	3xE+01
Bromoform	75-25-2	7xE-01
Calcium cyanide	592-01-8	1xE-06
Carbon disulfide	75-15-0	4xE+00
Carbon tetrachloride	56-23-5	5xE-03
Chlordane	57-74-9	3xE-04
Chlorobenzene	108-90-7	1xE+00
Chloroform	67-66-3	6xE-02
Copper cyanide	544-92-3	2xE-01
Cresols (Cresylic acid)	1319-77-3	2xE+00
Cyanogen	460-19-5	1xE+00
DDT	50-29-3	1xE-03
Dibenz(a, h)-anthracene	53-70-3	7xE-06
1,2-Dibromo-3 -chloropropane	96-12-8	2xE-05
p-Dichlorobenzene	106-46-7	7.5xE-02
Dichlorodifluoromethane	75-71-8	7xE+00
1,1-Dichloroethylene	75-35-4	5xE-03
2,4-Dichlorophenol	120-83-2	1xE-01
1,3-Dichloropropene	542-75-6	1xE-03
Dieldrin	60-57-1	2xE-05

Diethyl phthalate	84-66-2	3xE+01
Diethylstilbesterol	56-53-1	7xE-07
Dimethoate	60-51-5	3xE-02
2,4-Dinitrotoluene	121-14-2	5xE-04
Diphenylamine	122-39-4	9xE-01
1,2-Diphenylhydrazine	122-66-7	5xE-04
Endosulfan	115-29-7	2xE-03
Endrin	72-20-8	2xE-04
Epichlorohydrin	106-89-8	4xE-02
Ethylene dibromide	106-93-4	4xE-07
Ethylene oxide	75-21-8	3xE-04
Fluorine	7782-41-4	4xE+00
Formic acid	64-18-6	7xE+01
Heptachlor	76-44-8	8xE-05
Heptachlor epoxide	1024-57-3	4xE-05
Hexachlorobenzene	118-74-1	2xE-04
Hexachlorobutadiene	87-68-3	5xE-03
Hexachlorocyclopentadiene	77-47-4	2xE-01
Hexachlorodibenzo-p -dioxins	19408-74-3	6xE-08
Hexachloroethane	67-72-1	3xE-02
Hydrazine	302-01-1	1xE-04
Hydrogen cyanide	74-90-8	7xE-05
Hydrogen sulfide	7783-06-4	1xE-06
Isobutyl alcohol	78-83-1	1xE+01
Methomyl	16752-77-5	1xE+00
Methoxychlor	72-43-5	1xE-01
3-Methylcholanthrene	56-49-5	4xE-05
4,4'-Methylenebis (2-chloroaniline)	101-14-4	2xE-03
Methylene chloride	75-09-2	5xE-02
Methyl ethyl ketone (MEK)	78-93-3	2xE+00
Methyl hydrazine	60-34-4	3xE-04
Methyl parathion	298-00-0	2xE-02
Naphthalene	91-20-3	1xE+01
Nickel cyanide	557-19-7	7xE-01
Nitric oxide	10102-43-9	4xE+00
Nitrobenzene	98-95-3	2xE-02
N-Nitrosodi-n -butylamine	924-16-3	6xE-05
N-Nitrosodiethylamine	55-18-5	2xE-06
N-Nitroso-N-methylurea	684-93-5	1xE-07
N-Nitrosopyrrolidine	930-55-2	2xE-04
Pentachlorobenzene	608-93-5	3xE-02
Pentachloronitrobenzene (PCNB)	82-68-8	1xE-01
Pentachlorophenol	87-86-5	1xE+00
Phenol	108-95-2	1xE+00
Phenylmercury acetate	62-38-4	3xE-03
Phosphine	7803-51-2	1xE-02
Polychlorinated biphenyls, N.O.S	1336-36-3	5xE-05
Potassium cyanide	151-50-8	2xE+00
Potassium silver cyanide	506-61-6	7xE+00
Pronamide	23950-58-5	3xE+00
Pyridine	110-86-1	4xE-02
Reserpine	50-55-5	3xE-05
Selenourea	630-10-4	2xE-01
Silver cyanide	506-64-9	4xE+00
Sodium cyanide	143-33-9	1xE+00
Strychnine	57-24-9	1xE-02
1,2,4,5- Tetrachlorobenzene	95-94-3	1xE-02
1,1,2,2- tetrachloroethane	79-34-5	2xE-03
Tetrachloroethylene	127-18-4	7xE-01
2,3,4,6- Tetrachlorophenol	58-90-2	1xE-02
Tetraethyl lead	78-00-2	4xE-06
Thiourea	62-56-6	2xE-04
Toluene	108-88-3	1xE+01
Toxaphene	8001-35-2	5xE-03
1,1,2-Trichloroethane	79-00-5	6xE-03
Trichloroethylene	79-01-6	5xE-03
Trichloromonofluoromethane	75-69-4	1xE+01
2,4,5-Trichlorophenol	95-95-4	4xE+00
2,4,6-Trichlorophenol	88-06-2	4xE+00
Vanadium pentoxide	1314-62-1	7xE-01
Vinyl chloride	75-01-4	2xE-03

*Note 1: The health-based concentration limits for appendix VIII Rule R315-261 constituents for which a health-based concentration is not provided below is 2xE-06 mg/kg.

Note 2: The levels specified in this appendix and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of this appendix are administratively stayed under the condition, for those constituents specified in Subsection R315-266-112(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in Section R315-268-43 for F039 nonwastewaters. See Subsection R315-266-112(b)(2)(i).

R315-266-607. Appendix VIII to Rule R315-266 -- Organic Compounds for Which Residues Shall Be Analyzed.

Table

Volatiles

Benzene
Toluene
Carbon tetrachloride
Chloroform
Methylene chloride
Trichloroethylene
Tetra chloroethylene
1,1,1-Trichloroethane
Chlorobenzene
cis-1,4-Dichloro-2-butene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Methylene bromide
Methyl ethyl ketone

Semivolatiles

Bis(2-ethylhexyl)phthalate
Naphthalene
Phenol
Diethyl phthalate
Butyl benzyl phthalate
2,4-Dimethylphenol
o-Dichlorobenzene
m-Dichlorobenzene
p-Dichlorobenzene
Hexachlorobenzene
2,4,6-Trichlorophenol
Fluoranthene
o-Nitrophenol
1,2,4-Trichlorobenzene
o-Chlorophenol
Pentachlorophenol
Pyrene
Dimethyl phthalate
Mononitrobenzene
2,6-Toluene diisocyanate
Polychlorinated dibenzo-p-dioxins(1)
Polychlorinated dibenzo-furans(1)

(1) Analyses for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans are required only for residues collected from areas downstream of the combustion chamber, e.g., ductwork, boiler tubes, heat exchange surfaces, air pollution control devices, etc.

Note to Appendix VIII: Analysis is not required for those compounds that do not have an established F039 nonwastewater concentration limit.

R315-266-608. Appendix IX to Rule R315-266 -- Methods Manual for Compliance With the BIF Regulations.

Appendix IX of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.

R315-266-609. Appendix XI to Rule R315-266 -- Lead-Bearing Materials That May Be Processed in Exempt Lead Smelters.

A. Exempt Lead-Bearing Materials If Generated or Originally Produced By Lead-Associated Industries(1)

Acid dump or fill solids

Sump mud

Materials from laboratory analyses

Acid filters

Baghouse bags

Clothing, e.g., coveralls, aprons, shoes, hats, gloves
Sweepings
Air filter bags and cartridges
Respiratory cartridge filters
Shop abrasives
Stacking boards
Waste shipping containers, e.g., cartons, bags, drums, cardboard
Paper hand towels
Wiping rags and sponges
Contaminated pallets
Water treatment sludges, filter cakes, residues, and solids
Emission control dusts, sludges, filter cakes, residues, and solids from lead-associated industries, e.g., K069 and D008 wastes
Spent grids, posts, and separators
Spent batteries
Lead oxide and lead oxide residues
Lead plates and groups
Spent battery cases, covers, and vents
Pasting belts
Water filter media
Cheesecloth from pasting rollers
Pasting additive bags
Asphalt paving materials
B. Exempt Lead-Bearing Materials If Generated or Originally Produced By Any Industry
Charging jumpers and clips
Platen abrasive
Fluff from lead wire and cable casings
Lead-based pigments and compounding pigment dust
(1) Lead-associated industries are lead smelters, lead-acid battery manufacturing, and lead chemical manufacturing, e.g., manufacturing of lead oxide or other lead compounds.

R315-266-610. Appendix XII to Rule R315-266 -- Nickel or Chromium-Bearing Materials That May Be Processed in Exempt Nickel-Chromium Recovery Furnaces.

A. Exempt Nickel or Chromium-Bearing Materials if Generated by Manufacturers or Users of Nickel, Chromium, or Iron
Baghouse bags
Raney nickel catalyst
Floor sweepings
Air filters
Electroplating bath filters
Wastewater filter media
Wood pallets
Disposable clothing (coveralls, aprons, hats, and gloves)
Laboratory samples and spent chemicals
Shipping containers and plastic liners from containers or vehicles used to transport nickel or chromium-containing wastes
Respirator cartridge filters
Paper hand towels
B. Exempt Nickel or Chromium-Bearing Materials if Generated by Any Industry
Electroplating wastewater treatment sludges (F006)
Solutions containing Nickel, chromium or both
Nickel, chromium, and iron catalysts
Nickel-cadmium and nickel-iron batteries
Filter cake from wet scrubber system water treatment plants in the specialty steel industry(1)
Filter cake from nickel-chromium alloy pickling operations(1)
(1) If a hazardous waste under an authorized State program.

R315-266-611. Appendix XIII to Rule R315-266 -- Mercury Bearing Wastes That May Be Processed in Exempt Mercury Recovery Units.

These are exempt mercury-bearing materials with less than 500 ppm of Rule R315-261, appendix VIII organic constituents if generated by manufacturers or users of mercury or mercury products.

1. Activated carbon
2. Decomposer graphite
3. Wood
4. Paper

5. Protective clothing
6. Sweepings
7. Respiratory cartridge filters
8. Cleanup articles
9. Plastic bags and other contaminated containers
10. Laboratory and process control samples
11. K106 and other wastewater treatment plant sludge and filter cake
12. Mercury cell sump and tank sludge
13. Mercury cell process solids
14. Recoverable levels of mercury contained in soil

KEY: hazardous waste
Date of Last Change: January 13, 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-268**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-268. Land Disposal Restrictions	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments have been received since the last five-year review of this rule.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
Rule R315-268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed. These standards are required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315-268-1. Land Disposal Restrictions -- Purpose, Scope, and Applicability.

(a) Rule R315-268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

(b) Except as specifically provided otherwise in Rule R315-268 or Rule R315-261, the requirements of Rule R315-268 apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities.

(c) Restricted wastes may continue to be land disposed as follows:

(1) where persons have been granted an extension to the effective date of a prohibition under Sections R315-268-20 through R315-268-39 or pursuant to Section R315-268-5, with respect to those wastes covered by the extension;

(2) where persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under Rule R315-268, or 40 CFR 148, are not prohibited if the wastes:

(i) are disposed into a nonhazardous or hazardous injection well as defined under 40 CFR 146.6(a); and

(ii) do not exhibit any prohibited characteristic of hazardous waste identified in Sections R315-261-20 through R315-261-24, at the point of injection.

(4) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under Rule R315-268, are not prohibited if the wastes meet any of the following criteria, unless the wastes are subject to a specified method of treatment other than DEACT in Section R315-268-40, or are D003 reactive cyanide:

(i) the wastes are managed in a treatment system that subsequently discharges to waters of the U.S. pursuant to a permit issued under Section 402 of the Clean Water Act;

(ii) the wastes are treated for purposes of the pretreatment requirements of Section 307 of the Clean Water Act; or

(iii) the wastes are managed in a zero discharge system engaged in Clean Water Act-equivalent treatment as defined in Subsection R315-268-37(a); and

(iv) the wastes no longer exhibit a prohibited characteristic at the point of land disposal that is placement in a surface impoundment.

(d) The requirements of Rule R315-268 shall not affect the availability of a waiver under Section 121(d)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

(e) The following hazardous wastes are not subject to any provision of Rule R315-268:

(1) waste generated by very small quantity generators, as defined in Section R315-260-10;

(2) waste pesticides that a farmer disposes of pursuant to Section R315-262-70;

(3) wastes identified or listed as hazardous after November 8, 1984 that EPA has not promulgated land disposal prohibitions or treatment standards; and

(4) De minimis losses of characteristic wastes to wastewaters are not considered to be prohibited wastes and are defined as losses from normal material handling operations, for example, spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials; minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; rinsate from empty containers or from containers that are rendered empty by that rinsing; and laboratory wastes not exceeding one per cent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million in the headworks of the facility's wastewater treatment or pretreatment facility.

(f) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, are exempt from Sections R315-268-7 and R315-268-50 for the hazardous wastes listed in Subsections R315-268-1(f)(1) through (5). These handlers are subject to regulation under Rule R315-273 if handling the following universal wastes:

(1) batteries as described in Section R315-273-2;

(2) pesticides as described in Section R315-273-3;

(3) mercury-containing equipment as described in Section R315-273-4;

(4) lamps as described in Section R315-273-5; and

(5) aerosol cans as described in Section R315-273-6.

R315-268-2. Land Disposal Restrictions -- Definitions Applicable in Rule R315-268.

When used in Rule R315-268 the following terms have the meanings given below:

(a) Halogenated organic compounds or HOCs means those compounds having a carbon-halogen bond which are listed under appendix III to Rule R315-268.

(b) Hazardous constituent or constituents means those constituents listed in appendix VIII to Rule R315-261.

(c) Land disposal means placement in or on the land, except in a corrective action management unit or staging pile, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault, or bunker intended for disposal purposes.

(d) Nonwastewaters are wastes that do not meet the criteria for wastewaters in Subsection R315-268-2(f).

(e) Polychlorinated biphenyls or PCBs are halogenated organic compounds defined in accordance with 40 CFR 761.3.

(f) Wastewaters are wastes that contain less than 1% by weight total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS).

(g) Debris means solid material exceeding a 60 mm particle size that is intended for disposal and that is: A manufactured object;

or plant or animal matter; or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in Sections R315-268-40 through 49, namely lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by Section R315-268-45 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

(h) Hazardous debris means debris that contains a hazardous waste listed in Sections R315-261-30 through 35, or that exhibits a characteristic of hazardous waste identified in Sections R315-261-20 through 24. Any deliberate mixing of prohibited hazardous waste with debris that changes its treatment classification, i.e., from waste to hazardous debris, is not allowed under the dilution prohibition in Section R315-268-3.

(i) Underlying hazardous constituent means any constituent listed in Section R315-268-48, Table UTS-Universal Treatment Standards, except fluoride, selenium, sulfides, vanadium, and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste at a concentration above the constituent-specific UTS treatment standards.

(j) Inorganic metal-bearing waste is one for which EPA has established treatment standards for metal hazardous constituents, and which does not otherwise contain significant organic or cyanide content as described in Subsection R315-268-3(c)(1), and is specifically listed in appendix XI of Rule R315-268.

(k) Soil means unconsolidated earth material composing the superficial geologic strata, material overlying bedrock, consisting of clay, silt, sand, or gravel size particles as classified by the U.S. Natural Resources Conservation Service, or a mixture of such materials with liquids, sludges or solids which is inseparable by simple mechanical removal processes and is made up primarily of soil by volume based on visual inspection. Any deliberate mixing of prohibited hazardous waste with soil that changes its treatment classification, i.e., from waste to contaminated soil, is not allowed under the dilution prohibition in Section R315-268-3.

R315-268-3. Land Disposal Restrictions -- Dilution Prohibited As a Substitute for Treatment.

(a) Except as provided in Subsection R315-268-3(b), no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with Sections R315-268-40 through 49, to circumvent the effective date of a prohibition in Sections R315-268-20 through 39, to otherwise avoid a prohibition in Sections R315-268-20 through 39, or to circumvent a land disposal prohibition imposed by RCRA section 3004.

(b) Dilution of wastes that are hazardous only because they exhibit a characteristic in treatment systems which include land-based units which treat wastes subsequently discharged to a water of the United States pursuant to a permit issued under section 402 of the Clean Water Act (CWA), or which treat wastes in a CWA-equivalent treatment system, or which treat wastes for the purposes of pretreatment requirements under section 307 of the CWA is not impermissible dilution for purposes of Section R315-268-3 unless a method other than DEACT has been specified in Section R315-268-40 as the treatment standard, or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.

(c) Combustion of the hazardous waste codes listed in Appendix XI of Rule R315-268 is prohibited, unless the waste, at the point of generation, or after any bona fide treatment such as cyanide destruction prior to combustion, can be demonstrated to comply with one or more of the following criteria, unless otherwise specifically prohibited from combustion:

(1) The waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard found in Section R315-268-48;

(2) The waste consists of organic, debris-like materials, e.g., wood, paper, plastic, or cloth, contaminated with an inorganic metal-bearing hazardous waste;

(3) The waste, at point of generation, has reasonable heating value such as greater than or equal to 5000 BTU per pound;

(4) The waste is co-generated with wastes for which combustion is a required method of treatment;

(5) The waste is subject to Federal and/or State requirements necessitating reduction of organics, including biological agents; or

(6) The waste contains greater than 1% Total Organic Carbon (TOC).

(d) It is a form of impermissible dilution, and therefore prohibited, to add iron filings or other metallic forms of iron to lead-containing hazardous wastes in order to achieve any land disposal restriction treatment standard for lead. Lead-containing wastes include D008 wastes, wastes exhibiting a characteristic due to the presence of lead, all characteristic wastes containing lead as an underlying hazardous constituent, listed wastes containing lead as a regulated constituent, and hazardous media containing any of the aforementioned lead-containing wastes.

R315-268-4. Land Disposal Restrictions -- Treatment Surface Impoundment Exemption.

(a) Wastes which are otherwise prohibited from land disposal under Rule R315-268 may be treated in a surface impoundment or series of impoundments provided that:

(1) Treatment of such wastes occurs in the impoundments;

(2) The following conditions are met:

(i) Sampling and testing. For wastes with treatment standards in Sections R315-268-40 through 49 and/or prohibition levels in Sections R315-268-20 through 39 or RCRA section 3004(d), the residues from treatment are analyzed, as specified in Sections R315-268-7 or 268-32, to determine if they meet the applicable treatment standards or where no treatment standards have been established for the waste, the applicable prohibition levels. The sampling method, specified in the waste analysis plan under Section R315-264-13 or 40 CFR 265.13, which is adopted by reference, shall be designed such that representative samples of the sludge and the supernatant are tested separately rather than mixed to form homogeneous samples.

(ii) Removal. The following treatment residues, including any liquid waste, shall be removed at least annually; residues which do not meet the treatment standards promulgated under Sections R315-268-40 through 49; residues which do not meet the prohibition levels established under Sections R315-268-20 through 39 or imposed by statute, where no treatment standards have been established; residues which are from the treatment of wastes prohibited from land disposal under Sections R315-268-20 through 39, where no treatment standards have been established and no prohibition levels apply; or residues from managing listed wastes which are not delisted under Section R315-260-22. If the volume of liquid flowing through the impoundment or series of impoundments annually is greater than the volume of the impoundment or impoundments, this flow-through constitutes removal of the supernatant for the purpose of this requirement.

(iii) Subsequent management. Treatment residues may not be placed in any other surface impoundment for subsequent management.

(iv) Recordkeeping. Sampling and testing and recordkeeping provisions of Section R315-264-13 and 40 CFR 265.13, which is adopted by reference, apply.

(3) The impoundment meets the design requirements of Section R315-264-221(c) or 40 CFR 265.221(a), which is adopted by reference, regardless that the unit may not be new, expanded, or a replacement, and be in compliance with applicable ground water monitoring requirements of Sections R315-264-90 through 101 or 40 CFR 265.90 through 94, which are adopted by reference, unless:

(i) Exempted pursuant to Sections R315-264-221 (d) or (e), or to 40 CFR 265.221(c) or (d), which are adopted by reference; or,

(ii) Upon application by the owner or operator, the Director, after notice and an opportunity to comment, has granted a waiver of the requirements on the basis that the surface impoundment:

(A) Has at least one liner, for which there is no evidence that such liner is leaking;

(B) Is located more than one-quarter mile from an underground source of drinking water; and

(C) Is in compliance with generally applicable ground water monitoring requirements for facilities with permits; or,

(iii) Upon application by the owner or operator, the Director, after notice and an opportunity to comment, has granted a modification to the requirements on the basis of a demonstration that the surface impoundment is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(4) The owner or operator submits to the Director a written certification that the requirements of Section R315-268-4(a)(3) have been met. The following certification is required:

I certify under penalty of law that the requirements of Section R315-268-4(a)(3) have been met for all surface impoundments being used to treat restricted wastes. I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(b) Evaporation of hazardous constituents as the principal means of treatment is not considered to be treatment for purposes of an exemption under Section R315-268-4.

R315-268-5. Land Disposal Restrictions -- Procedures for Case-by-Case Extensions to an Effective Date.

Note to Sections R315-268-5. All references to administrative positions and to regulations are to the positions and regulations of the US Environmental Protection Agency. Utah does not administer Section R315-268-5.

(a) Any person who generates, treats, stores, or disposes of a hazardous waste may submit an application to the Administrator for an extension to the effective date of any applicable restriction established under Sections R315-268-20 through 39. The applicant shall demonstrate the following:

(1) He has made a good-faith effort to locate and contract with treatment, recovery, or disposal facilities nationwide to manage his waste in accordance with the effective date of the applicable restriction established under Sections R315-268-20 through 39;

(2) He has entered into a binding contractual commitment to construct or otherwise provide alternative treatment, recovery (e.g., recycling), or disposal capacity that meets the treatment standards specified in Sections R315-268-40 through 49 or, where treatment standards have not been specified, such treatment, recovery, or disposal capacity is protective of human health and the environment.

(3) Due to circumstances beyond the applicant's control, such alternative capacity cannot reasonably be made available by the applicable effective date. This demonstration may include a showing that the technical and practical difficulties associated with providing the alternative capacity will result in the capacity not being available by the applicable effective date;

(4) The capacity being constructed or otherwise provided by the applicant shall be sufficient to manage the entire quantity of waste that is the subject of the application;

(5) He provides a detailed schedule for obtaining required operating and construction permits or an outline of how and when alternative capacity will be available;

(6) He has arranged for adequate capacity to manage his waste during an extension and has documented in the application the location of all sites at which the waste will be managed; and

(7) Any waste managed in a surface impoundment or landfill during the extension period shall meet the requirements of Subsection R315-268-5(h)(2).

(b) An authorized representative signing an application described under Subsection R315-268-5(a) shall make the following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(c) After receiving an application for an extension, the Administrator may request any additional information which he deems as necessary to evaluate the application.

(d) An extension shall apply only to the waste generated at the individual facility covered by the application and shall not apply to

restricted waste from any other facility.

(e) On the basis of the information referred to in Subsection R315-268-5(a), after notice and opportunity for comment, and after consultation with appropriate State agencies in all affected States, the Administrator may grant an extension of up to 1 year from the effective date. The Administrator may renew this extension for up to 1 additional year upon the request of the applicant if the demonstration required in Subsection R315-268-5 (a) can still be made. In no event shall an extension extend beyond 24 months from the applicable effective date specified in Sections R315-268-20 through 39. The length of any extension authorized shall be determined by the Administrator based on the time required to construct or obtain the type of capacity needed by the applicant as described in the completion schedule discussed in Subsection R315-268-5(a)(5). The Administrator shall give public notice of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition shall be published in the Federal Register.

(f) Any person granted an extension under Section R315-268-5 shall immediately notify the Administrator as soon as he has knowledge of any change in the conditions certified to in the application.

(g) Any person granted an extension Section R315-268-5 shall submit written progress reports at intervals designated by the Administrator. Such reports shall describe the overall progress made toward constructing or otherwise providing alternative treatment, recovery or disposal capacity; shall identify any event which may cause or has caused a delay in the development of the capacity; and shall summarize the steps taken to mitigate the delay. The Administrator can revoke the extension at any time if the applicant does not demonstrate a good-faith effort to meet the schedule for completion, if the Agency denies or revokes any required permit, if conditions certified in the application change, or for any violation of Rules R315-260 through 266, 268, 270, 273, 124,15, and 101.

(h) Whenever the Administrator establishes an extension to an effective date under this section, during the period for which such extension is in effect:

(1) The storage restrictions under Subsection R315-268-50(a) do not apply; and

(2) Such hazardous waste may be disposed in a landfill or surface impoundment only if such unit is in compliance with the technical requirements of the following provisions regardless of whether such unit is existing, new, or a replacement or lateral expansion.

(i) The landfill, if in interim status, is in compliance with the requirements of subpart F of 40 CFR 265 and 40 CFR 265.301(a), (c), and (d) that is adopted by reference in Rule R315-265; or,

(ii) The landfill, if permitted, is in compliance with the requirements of Sections R315-264-90 through 101 and Subsections R315-264-301(c), (d) and (e); or

(iii) The surface impoundment, if in interim status, is in compliance with the requirements of subpart F of 40 CFR 265, 40 CFR 265.221(a),(c), and (d) that are adopted by reference in Rule R315-265, and RCRA section 3005(j)(1); or

(iv) The surface impoundment, if permitted, is in compliance with the requirements of Sections R315-264-90 through 101 and Subsections R315-264-221(c), (d) and (e); or

(v) The surface impoundment, if newly subject to RCRA section 3005(j)(1) due to the promulgation of additional listings or characteristics for the identification of hazardous waste, is in compliance with the requirements of subpart F of 40 CFR 265 that is adopted by reference in Rule R315-265 within 12 months after the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of 40 CFR 265.221(a), (c) and (d) that is adopted by reference in Rule R315-265 within 48 months after the promulgation of additional listings or characteristics of hazardous waste. If a national capacity variance is granted, during the period the variance is in effect, the surface impoundment, if newly subject to RCRA section 3005(j)(1) due to the promulgation of additional listings or characteristics of hazardous waste, is in compliance with the requirements of subpart F of 40 CFR 265 that is adopted by reference in Rule R315-265 within 12 months after the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of 40 CFR 265.221(a), (c) and (d) that is adopted by reference in Rule R315-265 within 48 months after the promulgation of additional listings or characteristics of hazardous waste; or

(vi) The landfill, if disposing of containerized liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm but less than 500 ppm, is also in compliance with the requirements of 40 CFR 761.75 and Rules R264 and 265.

(i) Pending a decision on the application the applicant is required to comply with all restrictions on land disposal under Rule R315-268 once the effective date for the waste has been reached.

R315-268-6. Land Disposal Restrictions -- Petitions to Allow Land Disposal of a Waste Prohibited Under Sections R315-268-20 through 39.

Note to Section R315-268-6. All references to administrative positions and to regulations are to the positions and regulations of the US Environmental Protection Agency. Utah does not administer Section R315-268-6.

(a) Any person seeking an exemption from a prohibition under Sections R315-268-20 through 39 for the disposal of a restricted hazardous waste in a particular unit or units shall submit a petition to the Administrator demonstrating, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous. The demonstration shall include the following components:

(1) An identification of the specific waste and the specific unit for which the demonstration will be made;

(2) A waste analysis to describe fully the chemical and physical characteristics of the subject waste;

(3) A comprehensive characterization of the disposal unit site including an analysis of background air, soil, and water quality.

(4) A monitoring plan that detects migration at the earliest practicable time;

(5) Sufficient information to assure the Administrator that the owner or operator of a land disposal unit receiving restricted waste(s) shall comply with other applicable Federal, State, and local laws.

(b) The demonstration referred to in Subsection R315-268-6(a) shall meet the following criteria:

(1) All waste and environmental sampling, test, and analysis data shall be accurate and reproducible to the extent that state-of-the-art techniques allow;

(2) All sampling, testing, and estimation techniques for chemical and physical properties of the waste and all environmental parameters shall have been approved by the Administrator;

(3) Simulation models shall be calibrated for the specific waste and site conditions, and verified for accuracy by comparison with actual measurements;

(4) A quality assurance and quality control plan that addresses all aspects of the demonstration shall be approved by the Administrator; and,

(5) An analysis shall be performed to identify and quantify any aspects of the demonstration that contribute significantly to uncertainty. This analysis shall include an evaluation of the consequences of predictable future events, including, but not limited to, earthquakes, floods, severe storm events, droughts, or other natural phenomena.

(c) Each petition referred to in Subsection R315-268-6(a) shall include the following:

(1) A monitoring plan that describes the monitoring program installed at and/or around the unit to verify continued compliance with the conditions of the variance. This monitoring plan shall provide information on the monitoring of the unit and/or the environment around the unit. The following specific information shall be included in the plan:

(i) The media monitored in the cases where monitoring of the environment around the unit is required;

(ii) The type of monitoring conducted at the unit, in the cases where monitoring of the unit is required;

(iii) The location of the monitoring stations;

(iv) The monitoring interval (frequency of monitoring at each station);

(v) The specific hazardous constituents to be monitored;

(vi) The implementation schedule for the monitoring program;

(vii) The equipment used at the monitoring stations;

(viii) The sampling and analytical techniques employed; and

(ix) The data recording/reporting procedures.

(2) Where applicable, the monitoring program described in Subsection R315-268-6(c)(1) shall be in place for a period of time specified by the Administrator, as part of his approval of the petition, prior to receipt of prohibited waste at the unit.

(3) The monitoring data collected according to the monitoring plan specified under Subsection R315-268-6(c)(1) shall be sent to the Administrator according to a format and schedule specified and approved in the monitoring plan, and

(4) A copy of the monitoring data collected under the monitoring plan specified under Subsection R315-268-6(c)(1) shall be kept on-site at the facility in the operating record.

(5) The monitoring program specified under Subsection R315-268-6(c)(1) meets the following criteria:

(i) All sampling, testing, and analytical data shall be approved by the Administrator and shall provide data that is accurate and reproducible.

(ii) All estimation and monitoring techniques shall be approved by the Administrator.

(iii) A quality assurance and quality control plan addressing all aspects of the monitoring program shall be provided to and approved by the Administrator.

(d) Each petition shall be submitted to the Administrator.

(e) After a petition has been approved, the owner or operator shall report any changes in conditions at the unit and/or the environment around the unit that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the units as follows:

(1) If the owner or operator plans to make changes to the unit design, construction, or operation, such a change shall be proposed, in writing, and the owner or operator shall submit a demonstration to the Administrator at least 30 days prior to making the change. The Administrator shall determine whether the proposed change invalidates the terms of the petition and shall determine the appropriate response. Any change shall be approved by the Administrator prior to being made.

(2) If the owner or operator discovers that a condition at the site which was modeled or predicted in the petition does not occur as predicted, this change shall be reported, in writing, to the Administrator within 10 days of discovering the change. The Administrator shall determine whether the reported change from the terms of the petition requires further action, which may include termination of waste acceptance and revocation of the petition, petition modifications, or other responses.

(f) If the owner or operator determines that there is migration of hazardous constituent(s) from the unit, the owner or operator shall:

(1) Immediately suspend receipt of prohibited waste at the unit, and

(2) Notify the Administrator, in writing, within 10 days of the determination that a release has occurred.

(3) Following receipt of the notification the Administrator shall determine, within 60 days of receiving notification, whether the owner or operator can continue to receive prohibited waste in the unit and whether the variance is to be revoked. The Administrator shall also determine whether further examination of any migration is warranted under applicable provisions of Rules R315-264 or 265.

(g) Each petition shall include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(h) After receiving a petition, the Administrator may request any additional information that reasonably may be required to evaluate the demonstration.

(i) If approved, the petition shall apply to land disposal of the specific restricted waste at the individual disposal unit described in the demonstration and shall not apply to any other restricted waste at that disposal unit, or to that specific restricted waste at any other

disposal unit.

(j) The Administrator shall give public notice in the Federal Register of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition shall be published in the Federal Register.

(k) The term of a petition granted under Section R315-268-6 shall be no longer than the term of the hazardous waste permit if the disposal unit is operating under a hazardous waste permit, or up to a maximum of 10 years from the date of approval provided under Subsection R315-268-6(g) if the unit is operating under interim status. In either case, the term of the granted petition shall expire upon the termination or denial of a hazardous waste permit, or upon the termination of interim status or when the volume limit of waste to be land disposed during the term of petition is reached.

(l) Prior to the Administrator's decision, the applicant is required to comply with all restrictions on land disposal under Rule R315-268 once the effective date for the waste has been reached.

(m) The petition granted by the Administrator does not relieve the petitioner of his responsibilities in the management of hazardous waste under Rules R315-260 through part 270.

(n) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 500 ppm are not eligible for an exemption under Section R315-268-6.

R315-268-7. Land Disposal Restrictions -- Testing, Tracking, and Recordkeeping Requirements for Generators, Reverse Distributors, Treaters, and Disposal Facilities.

(a) Requirements for generators and reverse distributors:

(1) A generator of hazardous waste shall determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in Sections R315-268-40, R315-268-45, or R315-268-49. This determination can be made concurrently with the hazardous waste determination required in Section R315-262-11, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in "Test Methods of Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, incorporated by reference, see Section R315-260-11, depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. Alternatively, the generator shall send the waste to a hazardous waste treatment facility permitted under Section 19-6-108, where the waste treatment facility shall comply with the requirements of Section R315-264-13 and Subsection R315-268-7(b). In addition, certain hazardous wastes shall be treated by particular treatment methods before they can be land disposed and soils contaminated by such hazardous wastes. These treatment standards are also found in Section R315-268-40 and are described in detail in Section R315-268-42, Table 1. These wastes, and soils contaminated with such wastes, do not need to be tested, however, if they are in a waste mixture, other wastes with concentration level treatment standards would have to be tested. If a generator determines they are managing a waste or soil contaminated with a waste, that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, they shall comply with the special requirements of Section R315-268-9 in addition to any applicable requirements in Section R315-268-7.

(2) If the waste or contaminated soil does not meet the treatment standards, or if the generator chooses not to make the determination of whether the waste shall be treated, with the initial shipment of waste to each treatment or storage facility, the generator shall send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the file. The notice shall include the information in column "268-7(a)(2)" of the Generator Paperwork Requirements Table in Subsection R315-268-7(a)(4). Alternatively, if the generator chooses not to make the determination of whether the waste shall be treated, the notification shall include the EPA Hazardous Waste Numbers and Manifest Number of the first shipment and shall state "This hazardous waste may or may not be subject to the LDR treatment standards. The treatment facility shall make the determination." No further notification is necessary until such time that the waste or facility change, in which case a new notification shall be sent and a copy placed in the generator's file.

(3) If the waste or contaminated soil meets the treatment standard at the original point of generation:

(i) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator shall send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in the file. The notice shall include the information indicated in column "268-7(a)(3)" of the Generator Paperwork Requirements Table in Subsection R315-268-7(a)(4) and the following certification statement, signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in Sections R315-268-40 through R315-268-49. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

(ii) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator shall send a one-time written notice to each facility receiving the waste and place a copy in the file. The notice shall include the information in column "268-7(a)(3)" of the Generator Paperwork Requirements Table in Subsection R315-268-7(a)(4).

(iii) If the waste changes, the generator shall send a new notice and certification to the receiving facility and place a copy in their files. Generators of hazardous debris excluded from the definition of hazardous waste under Subsection R315-261-3(f) are not subject to these requirements.

(4) For reporting, tracking, and recordkeeping if exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed: There are certain exemptions from the requirement that hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to case-by-case extensions under Section R315-268-5, disposal in a no-migration unit under Section R315-268-6, or a national capacity variance or case-by-case capacity variance under Sections R315-268-20 through R315-268-39. If a generator's waste is so exempt, then with the initial shipment of waste, the

generator shall send a one-time written notice to each land disposal facility receiving the waste. The notice shall include the information indicated in column "268-7(a)(4)" of the Generator Paperwork Requirements Table below. If the waste changes, the generator shall send a new notice to the receiving facility, and place a copy in their files.

TABLE 1

Generator Paperwork Requirements

Required information	268-7 (a)(2)	268-7 (a)(3)	268-7 (a)(4)	268-7 (a)(9)
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment	X	X	X	X
2. Statement: this waste is not prohibited from land disposal			X	
3. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for each constituent. If each constituent will be treated and monitored, there is no need to put each of them on the LDR notice	X	X		
4. The notice shall include the applicable wastewater or nonwastewater category (see Section R315-268-2(d) and R315-268-2(f)) and subdivisions made within a waste code based on waste-specific criteria, such as D003 reactive cyanide	X	X		
5. Waste analysis data, if available	X	X	X	
6. Date the waste is subject to the prohibition			X	
7. For hazardous debris, if treating with the alternative treatment technologies provided by Section R315-268-45: the contaminants subject to treatment, as described in Section R315-268-45(b); and an indication that these contaminants are being treated to comply with Section R315-268-45	X		X	
8. For contaminated soil subject to LDRs as provided in Subsection R315-268-49(a), the constituents subject to treatment as described in Subsection R315-268-49(d), and the following statement: "This contaminated soil, does/does not, contain listed hazardous waste and, does/does not, exhibit a characteristic of hazardous waste and, is subject to/complies with, the soil treatment standards as provided by Subsection R315-268-49(c) or the universal treatment standards"	X	X		
9. A certification is needed, see applicable section for exact wording		X		X

(5) If a generator is managing and treating prohibited waste or contaminated soil in tanks, containers, or containment buildings regulated under Sections R315-262-15, R315-262-16, and R315-262-17 to meet applicable LDR treatment standards found at Section R315-268-40, the generator shall develop and follow a written waste analysis plan which describes the procedures it will carry out to comply with the treatment standards. Generators treating hazardous debris under the alternative treatment standards of Table 1 to Section R315-268-45, however, are not subject to these waste analysis requirements. The plan shall be kept on site in the generator's records, and the following requirements shall be met:

(i) The waste analysis plan shall be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste(s) being treated, and contain the information necessary to treat the wastes in accordance with the requirements of Rule

R315-268, including the selected testing frequency.

(ii) Such plan shall be kept in the facility's on-site files and made available to inspectors.

(iii) Wastes shipped off-site pursuant to Subsection R315-268-7(a) shall comply with the notification requirements of Subsection R315-268-7(a)(3).

(6) If a generator determines that the waste or contaminated soil is restricted based solely on his knowledge of the waste, the supporting data used to make this determination shall be retained on-site in the generator's files. If a generator determines that the waste is restricted based on testing this waste or an extract developed using the test method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as referenced in Section R315-260-11, and the waste analysis data shall be retained on-site in the generator's files.

(7) If a generator determines that he is managing a prohibited waste that is excluded from the definition of hazardous or solid waste or is exempted from regulation under Sections R315-261-2 through R315-261-6 subsequent to the point of generation, including deactivated characteristic hazardous wastes managed in wastewater treatment systems subject to the Clean Water Act (CWA) as specified at Subsection R315-261-4(a)(2) or that are CWA-equivalent, or are managed in an underground injection well regulated by the SDWA, he shall place a one-time notice describing such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from regulation under Sections R315-261-2 through R315-261-6, and the disposition of the waste, in the facility's on-site files.

(8) Generators shall retain on-site a copy of the notices, certifications, waste analysis data, and other documentation produced pursuant to Section R315-268-7 for at least three years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director. The requirements of Subsection R315-268-7(a) apply to solid wastes even if the hazardous characteristic is removed prior to disposal, or if the waste is excluded from the definition of hazardous or solid waste under Sections R315-261-2 through R315-261-6, or exempted from hazardous waste regulation, subsequent to the point of generation.

(9) If a generator is managing a lab pack containing hazardous wastes and wishes to use the alternative treatment standard for lab packs found at Subsection R315-268-42(c):

(i) With the initial shipment of waste to a treatment facility, the generator shall submit a notice that provides the information in column "268-7(a)(9)" in the Generator Paperwork Requirements Table of Subsection R315-268-7(a)(4), and the following certification. The certification, which shall be signed by an authorized representative and shall be placed in the generator's files, shall say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to Rule R315-268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at Subsection R315-268-42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

(ii) No further notification is necessary until such time that the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification shall be sent and a copy placed in the generator's file.

(iii) If the lab pack contains characteristic hazardous wastes, D001-D043 excluding D009, underlying hazardous constituents, as defined in Subsection R315-268-2(i) need not be determined.

(iv) The generator shall also comply with the requirements in Subsections R315-268-7(a)(6) and R315-268-7(a)(7).

(10) Small quantity generators with tolling agreements pursuant to Subsection R315-262-20(e) shall comply with the applicable notification and certification requirements of Subsection R315-268-7(a) for the initial shipment of the waste subject to the agreement. Such generators shall retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director.

(b) Treatment facilities shall test their wastes according to the frequency specified in their waste analysis plans as required by Section R315-264-13, for permitted TSDs, or Section R315-265-13, for interim status facilities. Such testing shall be performed as provided in Subsections R315-268-7(b)(1), R315-268-7(b)(2) and R315-268-7(b)(3).

(1) For wastes or contaminated soil with treatment standards expressed in the waste extract, TCLP, the owner or operator of the treatment facility shall test an extract of the treatment residues, using test method 1311, the Toxicity Characteristic Leaching Procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 as incorporated by reference in Section R315-260-11, to assure that the treatment residues extract meet the applicable treatment standards.

(2) For wastes or contaminated soil with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility shall test the treatment residues, not an extract of such residues, to assure that they meet the applicable treatment standards.

(3) A one-time notice shall be sent with the initial shipment of waste or contaminated soil to the land disposal facility. A copy of the notice shall be placed in the treatment facility's file.

(i) No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice shall be sent and a copy placed in the treatment facility's file.

(ii) The one-time notice shall include these requirements:

TABLE 2

Treatment Facility Paperwork Requirements

Required information	268-7(b)
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment	X

2. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for each constituent. If each constituent will be treated and monitored, there is no need to put each of them on the LDR notice.	X
3. The notice shall include the applicable wastewater or nonwastewater category, see Subsections R315-268-2(d) and R315-268-2(f)) and subdivisions made within a waste code based on waste-specific criteria, such as D003 reactive cyanide	X
4. Waste analysis data, if available	X
5. For contaminated soil subject to LDRs as provided in Subsection R315-268-49(a), the constituents subject to treatment as described in Subsection R315-268-49(d) and the following statement, "this contaminated soil, does/does not, exhibit a characteristic of hazardous waste and, is subject to/complies with, the soil treatment standards as provided by Subsection R315-268-49(c)".	X
6. A certification is needed, see applicable section for exact wording	X

(4) The treatment facility shall submit a one-time certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification shall state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in Section R315-268-40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

A certification is also necessary for contaminated soil and it shall state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in Section R315-268-49 without impermissible dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(i) A copy of the certification shall be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification shall be sent to the receiving facility, and a copy placed in the file.

(ii) Debris excluded from the definition of hazardous waste under Subsection R315-261-3(f) that is debris treated by an extraction or destruction technology provided by Table 1, Section R315-268-45, and debris that the Director has determined does not contain hazardous waste, however, is subject to the notification and certification requirements of Subsection R315-268-7(d) rather than the certification requirements of Subsection R315-268-7(b).

(iii) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole or in part on the analytical detection limit alternative specified in Subsection R315-268-40(d), the certification, signed by an authorized representative, shall state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in Section R315-268-42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(iv) For characteristic wastes that are subject to the treatment standards in Section R315-268-40, other than those expressed as a method of treatment, or Section R315-268-49, and that contain underlying hazardous constituents as defined in Subsection R315-268-2(i); if these wastes are treated on-site to remove the hazardous characteristic; and are then sent off-site for treatment of underlying hazardous constituents, the certification shall state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of Section R315-268-40 or R315-268-49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(v) For characteristic wastes that contain underlying hazardous constituents as defined Subsection R315-268-2(i) that are treated on-site to remove the hazardous characteristic to treat underlying hazardous constituents to levels in Section R315-268-48 Universal Treatment Standards, the certification shall state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of Section R315-268-40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in Subsection R315-268-2(i) have been treated on-site to meet the Section R315-268-48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(5) If the waste or treatment residue will be further managed at a different treatment, storage, or disposal facility, the treatment,

storage, or disposal facility sending the waste or treatment residue off-site shall comply with the notice and certification requirements applicable to generators under Section R315-268-7.

(6) Where the wastes are recyclable materials used in a manner constituting disposal subject to Subsection R315-266-20(b) regarding treatment standards and prohibition levels, the owner or operator of a treatment facility, that is the recycler, shall, for the initial shipment of waste, prepare a one-time certification described in Subsection R315-268-7(b)(4), and a one-time notice which includes the information in Subsection R315-268-7(b)(3), except the manifest number. The certification and notification shall be placed in the facility's on-site files. If the waste or the receiving facility changes, a new certification and notification shall be prepared and placed in the on-site files. In addition, the recycling facility shall also keep records of the name and location of each entity receiving the hazardous waste-derived product.

(c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to Subsection R315-266-20(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under Rule R315-268 shall:

(1) Have copies of the notice and certifications specified in Subsection R315-268-7(a) or R315-268-7(b).

(2) Test the waste, or an extract of the waste or treatment residue developed using test method 1311, the Toxicity Characteristic Leaching Procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 as incorporated by reference in Section R315-260-11, to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in Sections R315-268-40 through R315-268-49. Such testing shall be performed according to the frequency specified in the facility's waste analysis plan as required by Section R315-264-13 or R315-265-13.

(d) Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under Subsection R315-261-3(f) that is debris treated by an extraction or destruction technology provided by Table 1, Section R315-268-45, and debris that the Director has determined does not contain hazardous waste, are subject to the following notification and certification requirements:

(1) A one-time notification, including the following information, shall be submitted to the Director:

(i) The name and address of the Subtitle D facility receiving the treated debris;

(ii) A description of the hazardous debris as initially generated, including the applicable EPA Hazardous Waste Numbers; and

(iii) For debris excluded under Subsection R315-261-3(f)(1), the technology from Table 1, Section R315-268-45, used to treat the debris.

(2) The notification shall be updated if the debris is shipped to a different facility, and, for debris excluded under Subsection R315-261-2(f)(1), if a different type of debris is treated or if a different technology is used to treat the debris.

(3) For debris excluded under Subsection R315-261-3(f)(1), the owner or operator of the treatment facility shall document and certify compliance with the treatment standards of Table 1, Section R315-268-45, as follows:

(i) Records shall be kept of each inspection, evaluation, and analyses of treated debris that are made to determine compliance with the treatment standards;

(ii) Records shall be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and

(iii) For each shipment of treated debris, a certification of compliance with the treatment standards shall be signed by an authorized representative and placed in the facility's files. The certification shall state the following: "I certify under penalty of law that the debris has been treated in accordance with the requirements of Section R315-268-45. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."

(e) Generators and treaters who first receive from the Director a determination that a given contaminated soil subject to LDRs as provided in Subsection R315-268-49(a) no longer contains a listed hazardous waste and generators and treaters who first determine that a contaminated soil subject to LDRs as provided in Subsection R315-268-49(a) no longer exhibits a characteristic of hazardous waste shall:

(1) Prepare a one-time only documentation of these determinations including supporting information; and

(2) Maintain that information in the facility files and other records for a minimum of three years.

R315-268-9. Land Disposal Restrictions -- Special Rules Regarding Wastes That Exhibit a Characteristic.

(a) The initial generator of a solid waste shall determine each EPA Hazardous Waste Number, waste code, applicable to the waste in order to determine the applicable treatment standards under Sections R315-268-40 through 49. This determination may be made concurrently with the hazardous waste determination required in Section R315-262-11. For purposes of Rule R315-268, the waste shall carry the waste code for any applicable listed waste Sections R315-261-30 through 35. In addition, where the waste exhibits a characteristic, the waste shall carry one or more of the characteristic waste codes Sections R315-261-20 through 24, except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in Subsection R315-268-9(b). If the generator determines that their waste displays a hazardous characteristic, and is not D001 nonwastewaters treated by CMBST, RORGS, OR POLYM of Section R315-268-42, Table 1, the generator shall determine the underlying hazardous constituents, as defined at Subsection R315-268-2(i), in the characteristic waste.

(b) Where a prohibited waste is both listed under Sections R315-261-30 through 35 and exhibits a characteristic under Sections R315-261-20 through 24, the treatment standard for the waste code listed in Sections R315-261-30 through 35 shall operate in lieu of the standard for the waste code under Sections R315-261-20 through 24, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste shall meet the treatment standards for all applicable listed and characteristic waste codes.

(c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under Sections R315-261-20 through 24 may be land disposed unless the waste complies with the treatment standards under

Sections R315-268-40 through 49.

(d) Wastes that exhibit a characteristic are also subject to Section R315-268-7 requirements, except that once the waste is no longer hazardous, a one-time notification and certification shall be placed in the generator's or treater's on-site files. The notification and certification shall be updated if the process or operation generating the waste changes and/or if the non-hazardous waste facility receiving the waste changes.

(1) The notification shall include the following information:

(i) Name and address of the non-hazardous waste facility receiving the waste shipment; and

(ii) A description of the waste as initially generated, including the applicable EPA hazardous waste code(s), treatability group(s), and underlying hazardous constituents, as defined in Subsection R315-268-2(i), unless the waste will be treated and monitored for all underlying hazardous constituents. If all underlying hazardous constituents will be treated and monitored, there is no requirement to list any of the underlying hazardous constituents on the notice.

(2) The certification shall be signed by an authorized representative and shall state the language found in Subsection R315-268-7(b)(4).

(i) If treatment removes the characteristic but does not meet standards applicable to underlying hazardous constituents, then the certification found in Subsection R315-268-7(b)(4)(iv) applies.

R315-268-13. Land Disposal Restrictions -- Schedule for Wastes Identified or Listed After November 8, 1984.

In the case of any hazardous waste identified or listed under section 3001 after November 8, 1984, the Administrator shall make a land disposal prohibition determination within 6 months after the date of identification or listing.

R315-268-14. Land Disposal Restrictions -- Surface Impoundment Exemptions.

(a) Section R315-268-14 defines additional circumstances under which an otherwise prohibited waste may continue to be placed in a surface impoundment.

(b) Wastes which are newly identified or listed under RCRA section 3001 after November 8, 1984, and stored in a surface impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing, may continue to be stored in the surface impoundment for 48 months after the promulgation of the additional listing or characteristic, notwithstanding that the waste is otherwise prohibited from land disposal, provided that the surface impoundment is in compliance with the requirements of 40 CFR 265.90 through 94, which are adopted by reference, within 12 months after promulgation of the new listing or characteristic.

(c) Wastes which are newly identified or listed under RCRA section 3001 after November 8, 1984, and treated in a surface impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing, may continue to be treated in that surface impoundment, notwithstanding that the waste is otherwise prohibited from land disposal, provided that surface impoundment is in compliance with the requirements of 40 CFR 265.90 through 94, which are adopted by reference, within 12 months after the promulgation of the new listing or characteristic. In addition, if the surface impoundment continues to treat hazardous waste after 48 months from promulgation of the additional listing or characteristic, it shall then be in compliance with Section R315-268-4.

R315-268-20. Land Disposal Restrictions -- Waste Specific Prohibitions -- Dyes and/or Pigments Production Wastes.

(a) Effective August 23, 2005, the waste specified in Rule R315-261 as EPA Hazardous Waste Number K181, and soil and debris contaminated with this waste, radioactive wastes mixed with this waste, and soil and debris contaminated with radioactive wastes mixed with this waste are prohibited from land disposal.

(b) The requirements of Subsection R315-268-20(a) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Hazardous debris has met the treatment standards in Section R315-268-40 or the alternative treatment standards in Section R315-268-45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in Section R315-268-20 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract of the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable Sections R315-268-40 through 49 levels, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-30. Land Disposal Restrictions -- Waste Specific Prohibitions -- Wood Preserving Wastes.

(a) Effective August 11, 1997, the following wastes are prohibited from land disposal: the wastes specified in Rule R315-261 as EPA Hazardous Waste numbers F032, F034, and F035.

(b) Effective May 12, 1999, the following wastes are prohibited from land disposal: soil and debris contaminated with F032, F034, F035; and radioactive wastes mixed with EPA Hazardous waste numbers F032, F034, and F035.

(c) Between May 12, 1997 and May 12, 1999, soil and debris contaminated with F032, F034, F035; and radioactive waste mixed with F032, F034, and F035 may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h)(2).

(d) The requirements of Subsections R315-268-30(a) and (b) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section R315-268-44; or

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to those wastes covered by the extension.

(e) To determine whether a hazardous waste identified in Section R315-268-30 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Universal Treatment Standard levels of Section R315-268-48, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-31. Land Disposal Restrictions -- Waste Specific Prohibitions-Dioxin-Containing Wastes.

(a) Effective November 8, 1988, the dioxin-containing wastes specified in Section R315-261-31 as EPA Hazardous Waste Nos. F020, F02l, F022, F023, F026, F027, and F028, are prohibited from land disposal unless the following condition applies:

(1) The F020-F023 and F026-F028 dioxin-containing waste is contaminated soil and debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or a corrective action taken under subtitle C of the Resource Conservation and Recovery Act (RCRA).

(b) Effective November 8, 1990, the F020-F023 and F026-F028 dioxin-containing wastes listed in Subsection R315-268-31(a)(1) are prohibited from land disposal.

(c) Between November 8, 1988, and November 8, 1990, wastes included in Subsection R315-268-31(a)(1) may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h)(2) and all other applicable requirements of Rules R315-264 and 265.

(d) The requirements of Subsections R315-268-31(a) and (b) do not apply if:

(1) The wastes meet the standards of Sections R315-268-40 through 49; or

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition; or

(3) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to those wastes covered by the extension.

R315-268-32. Land Disposal Restrictions -- Waste Specific Prohibitions -- Soils Exhibiting the Toxicity Characteristic for Metals and Containing Pcbs.

(a) Effective December 26, 2000, the following wastes are prohibited from land disposal: any volumes of soil exhibiting the toxicity characteristic solely because of the presence of metals (D004---D011) and containing PCBs.

(b) The requirements of Subsection R315-268-32(a) do not apply if:

(1)(i) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and

(ii) The wastes meet the treatment standards specified in Sections R315-268-40 through 49 for EPA hazardous waste numbers D004-D011, as applicable; or

(2)(i) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and

(ii) The wastes meet the alternative treatment standards specified in Section R315-268-49 for contaminated soil; or

(3) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition; or

(4) The wastes meet applicable alternative treatment standards established pursuant to a petition granted under Section R315-268-44.

R315-268-33. Land Disposal Restrictions Waste Specific Prohibitions -- Chlorinated Aliphatic Wastes.

(a) Effective May 8, 2001, the wastes specified in Rule R315-261 as EPA Hazardous Wastes Numbers K174, and K175, soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.

(b) The requirements of Subsection R315-268-33(a) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Hazardous debris has met the treatment standards in Section R315-268-40 or the alternative treatment standards in Section R315-268-45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in Sections R315-268-33 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the

treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable levels of Sections R315-268-40 through 49, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

(d) Disposal of K175 wastes that have complied with all applicable Section R315-268-40 treatment standards shall also be macroencapsulated in accordance with Section R315-268-45 Table 1 unless the waste is placed in:

(1) A hazardous waste monofill containing only K175 wastes that meet all applicable Section R315-268-40 treatment standards; or

(2) A dedicated hazardous waste landfill cell in which all other wastes being co-disposed are at pH less than or equal to 6.0.

R315-268-34. Land Disposal Restrictions -- Waste Specific Prohibitions-Toxicity Characteristic Metal Wastes.

(a) Effective August 24, 1998, the following wastes are prohibited from land disposal: the wastes specified in Rule R315-261 as EPA Hazardous Waste numbers D004-D011 that are newly identified, i.e. wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure, and waste, soil, or debris from mineral processing operations that is identified as hazardous by the specifications at Rule R315-261.

(b) Effective November 26, 1998, the following waste is prohibited from land disposal: Slag from secondary lead smelting which exhibits the Toxicity Characteristic due to the presence of one or more metals.

(c) Effective May 26, 2000, the following wastes are prohibited from land disposal: newly identified characteristic wastes from elemental phosphorus processing; radioactive wastes mixed with EPA Hazardous wastes D004-D011 that are newly identified, i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure; or mixed with newly identified characteristic mineral processing wastes, soil, or debris.

(d) Between May 26, 1998 and May 26, 2000, newly identified characteristic wastes from elemental phosphorus processing, radioactive waste mixed with D004-D011 wastes that are newly identified, i.e., wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure, or mixed with newly identified characteristic mineral processing wastes, soil, or debris may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h).

(e) The requirements of Subsection R315-268-34(a) and (b) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49:

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section R315-268-44; or

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(f) To determine whether a hazardous waste identified in Section R315-268-34 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentration in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents, including underlying hazardous constituents in characteristic wastes, in excess of the applicable Universal Treatment Standard levels of Section R315-268-48, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-35. Land Disposal Restrictions -- Waste Specific Prohibitions -- Petroleum Refining Wastes.

(a) Effective February 8, 1999, the wastes specified in Rule R315-261 as EPA Hazardous Wastes Numbers K169, K170, K171, and K172, soils and debris contaminated with these wastes, radioactive wastes mixed with these hazardous wastes, and soils and debris contaminated with these radioactive mixed wastes, are prohibited from land disposal.

(b) The requirements of Subsection R315-268-35(a) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Hazardous debris that have met treatment standards in Section R315-268-40 or in the alternative treatment standards in Section R315-268-45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in Section R315-268-35 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Universal Treatment Standard levels of Section R315-268-48, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-36. Land Disposal Restrictions -- Waste Specific Prohibitions-Inorganic Chemical Wastes.

(a) Effective May 20, 2002, the wastes specified in Rule R315-261 as EPA Hazardous Wastes Numbers K176, K177, and K178, and soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with

radioactive wastes mixed with these wastes are prohibited from land disposal.

(b) The requirements of Subsection R315-268-36(a) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Hazardous debris has met the treatment standards in Section R315-268-40 or the alternative treatment standards in Section R315-268-45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in Section R315-268-36 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable Sections R315-268-40 through 49 levels, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-37. Land Disposal Restrictions -- Waste Specific Prohibitions -- Ignitable and Corrosive Characteristic Wastes Whose Treatment Standards Were Vacated.

(a) Effective August 9, 1993, the wastes specified in Section R315-261-21 as D001, and is not in the High TOC Ignitable Liquids Subcategory, and specified in Section R315-261-22 as D002, that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies.

(b) Effective February 10, 1994, the wastes specified in Section R315-261-21 as D001, and is not in the High TOC Ignitable Liquids Subcategory, and specified in Section R315-261-22 as D002, that are managed in systems defined in 40 CFR 144.6(e) and 146.6(e) as Class V injection wells, that do not engage in CWA-equivalent treatment before injection, are prohibited from land disposal.

R315-268-38. Land Disposal Restrictions -- Waste Specific Prohibitions-Newly Identified Organic Toxicity Characteristic Wastes and Newly Listed Coke By-Product and Chlorotoluene Production Wastes.

(a) Effective December 19, 1994, the wastes specified in Section R315-261-32 as EPA Hazardous Waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with EPA Hazardous Waste numbers F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359, and soil and debris contaminated with D012-D043, K141-K145, and K147-K151 are prohibited from land disposal. The following wastes that are specified in Section R315-261-24, Table 1 as EPA Hazardous Waste numbers: D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043 that are not radioactive, or that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that are zero dischargers that do not engage in CWA-equivalent treatment before ultimate land disposal, or that are injected in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/ sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

(b) On September 19, 1996, radioactive wastes that are mixed with D018-D043 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/ sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies. Radioactive wastes mixed with K141-K145, and K147-K151 are also prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

(c) Between December 19, 1994 and September 19, 1996, the wastes included in Subsection R315-268-38(b) may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h)(2).

(d) The requirements of Subsections R315-268-38(a), (b), and (c) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(e) To determine whether a hazardous waste identified in Section R315-268-38 exceeds the applicable treatment standards

specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Sections R315-268-40 through 49, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-39. Land Disposal Restrictions -- Waste Specific Prohibitions -- Spent Aluminum Potliners; Reactive; and Carbamate Wastes.

(a) On July 8, 1996, the wastes specified in Section R315-261-32 as EPA Hazardous Waste numbers K156-K159, and K161; and in Section R315-261-33 as EPA Hazardous Waste numbers P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U271, U278-U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409-U411 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

(b) On July 8, 1996, the wastes identified in Section R315-261-23 as D003 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. This prohibition does not apply to unexploded ordnance and other explosive devices which have been the subject of an emergency response. Such D003 wastes are prohibited unless they meet the treatment standard of DEACT before land disposal, see Section R315-268-40.

(c) On September 21, 1998, the wastes specified in Section R315-261-32 as EPA Hazardous Waste number K088 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

(d) On April 8, 1998, radioactive wastes mixed with K088, K156-K159, K161, P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U271, U278-U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409-U411 are prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

(e) Between July 8, 1996, and April 8, 1998, the wastes included in Subsections R315-268-39(a), (c), and (d) may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in Subsection R315-268-5(h)(2).

(f) The requirements of Subsections R315-268-39(a), (b), (c), and (d) do not apply if:

(1) The wastes meet the applicable treatment standards specified in Sections R315-268-40 through 49;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section R315-268-6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under Section R315-268-44;

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section R315-268-5, with respect to these wastes covered by the extension.

(g) To determine whether a hazardous waste identified in Section R315-268-39 exceeds the applicable treatment standards specified in Section R315-268-40, the initial generator shall test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Sections R315-268-40 through 49, the waste is prohibited from land disposal, and all requirements of Rule R315-268 are applicable, except as otherwise specified.

R315-268-40. Land Disposal Restrictions -- Applicability of Treatment Standards.

(a) A prohibited waste identified in the table "Treatment Standards for Hazardous Wastes" may be land disposed only if it meets the requirements found in the table. For each waste, the table identifies one of three types of treatment standard requirements:

(1) All hazardous constituents in the waste or in the treatment residue shall be at or below the values found in the table for that waste ("total waste standards"); or

(2) The hazardous constituents in the extract of the waste or in the extract of the treatment residue shall be at or below the values found in the table ("waste extract standards"); or

(3) The waste shall be treated using the technology specified in the table ("technology standard"), which are described in detail in Section R315-268-42, Table 1-Technology Codes and Description of Technology-Based Standards.

(b) For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311, the Toxicity Characteristic Leaching Procedure found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in Section R315-260-11, shall be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311, or Method 1310B, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the Administrator under the procedures set forth in Section R315-268-42(b).

(c) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue shall meet the lowest treatment standard for the constituent of concern.

(d) Notwithstanding the prohibitions specified in Subsection R315-268-40(a), treatment and disposal facilities may demonstrate, and certify pursuant to Subsection R315-268-7(b)(5), compliance with the treatment standards for organic constituents specified by a footnote in the table "Treatment Standards for Hazardous Wastes" in Section R315-268-40, provided the following conditions are satisfied:

(1) The treatment standards for the organic constituents were established based on incineration in units operated in accordance

with the technical requirements of Section R315-264-340 through 351, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;

(2) The treatment or disposal facility has used the methods referenced in Subsection R315-268-40(d)(1) to treat the organic constituents; and

(3) The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in Section R315-268-40 by an order of magnitude.

(e) For characteristic wastes (D001-D043) that are subject to treatment standards in the following table "Treatment Standards for Hazardous Wastes," and are not managed in a wastewater treatment system that is regulated under the Clean Water Act (CWA), that is CWA-equivalent, or that is injected into a Class I nonhazardous deep injection well, all underlying hazardous constituents, as defined in Section R315-268-2(i), shall meet Universal Treatment Standards, found in Section R315-268-48, Table Universal Treatment Standards, prior to land disposal as defined in Subsection R315-268-2(c).

(f) The treatment standards for F001-F005 nonwastewater constituents carbon disulfide, cyclohexanone, and/or methanol apply to wastes which contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test Method 1311, the Toxicity Characteristic Leaching Procedure found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, as incorporated by reference in Section R315-260-11. If the waste contains any of these three constituents along with any of the other 25 constituents found in F001-F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, and/or methanol are not required.

(g) Between August 26, 1996 and March 4, 1999 the treatment standards for the wastes specified in Section R315-261-32 as EPA Hazardous Waste numbers K156-K161; and in Section R315-261-33 as EPA Hazardous Waste numbers P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411; and soil contaminated with these wastes; may be satisfied by either meeting the constituent concentrations presented in the table "Treatment Standards for Hazardous Wastes" in Section R315-268-40, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at Section R315-268-42 Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at Section R315-268-42 Table 1, for wastewaters.

(h) Prohibited D004-D011 mixed radioactive wastes and mixed radioactive listed wastes containing metal constituents, that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage, do not have to be re-treated to meet treatment standards in Section R315-268-40 prior to land disposal.

(i) Reserved

(j) Effective September 4, 1998, the treatment standards for the wastes specified in Section R315-261-33 as EPA Hazardous Waste numbers P185, P191, P192, P197, U364, U394, and U395 may be satisfied by either meeting the constituent concentrations presented in the table "Treatment Standards for Hazardous Wastes" in Section R315-268-40, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at Section R315-268-42 Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at Section R315-268-42 Table 1, for wastewaters.

Table Treatment Standards for Hazardous Wastes and the Footnotes To Treatment Standards Standard Table in 40 CFR 268.40, 2015 edition, are adopted and incorporated by reference.

R315-268-41. Land Disposal Restrictions -- Treatment Standards Expressed as Concentrations in Waste Extract.

For the requirements previously found in Section R315-268-41 and for treatment standards in Table CCWE-Constituent Concentrations in Waste Extracts, refer to Section R315-268-40.

R315-268-42. Land Disposal Restrictions -- Treatment Standards Expressed as Specified Technologies.

Note: For the requirements previously found in Section R315-268-42 in Table 2-Technology-Based Standards By RCRA Waste Code, and Table 3-Technology-Based Standards for Specific Radioactive Hazardous Mixed Waste, refer to Section R315-268-40.

(a) The following wastes in the table in R315-268-40 "Treatment Standards for Hazardous Wastes," for which standards are expressed as a treatment method rather than a concentration level, shall be treated using the technology or technologies specified in the table entitled "Technology Codes and Description of Technology-Based Standards" in Section R315-268-42.

Table 1

Technology Codes and Description
of Technology-Based Standards

Technology code	Description of technology-based standards
ADGAS:	Venting of compressed gases into an absorbing or reacting media (i.e., solid or liquid)---venting can be accomplished through physical release utilizing valves/piping; physical penetration of the container; and/or penetration through detonation.
AMLGM:	Amalgamation of liquid, elemental mercury contaminated with radioactive materials

utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.

BIODG: Biodegradation of organics or non-metallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals, e.g., Total Organic Carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues.

CARBN: Carbon adsorption, granulated or powdered, of non-metallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough, e.g., Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues. Breakthrough occurs when the carbon has become saturated with the constituent, or indicator parameter, and substantial change in adsorption rate associated with that constituent occurs.

CHOXD: Chemical or electrolytic oxidation utilizing the following oxidation reagents, or waste reagents, or combinations of reagents: (1) Hypochlorite, e.g., bleach; (2) chlorine; (3) chlorine dioxide; (4) ozone or UV, ultraviolet light, assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permangantes; and/or (9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals, e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues. Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.

CHRED: Chemical reduction utilizing the following reducing reagents, or waste reagents, or combinations of reagents: (1) Sulfur dioxide; (2) sodium, potassium, or alkali salts or sulfites, bisulfites, metabisulfites, and polyethylene glycols, e.g., NaPEG and KPEG; (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals, e.g., Total Organic Halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues. Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.

CMBST: High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of Sections R315-264-340 through 351, 40 CFR 265.340 through 352, which are adopted by reference, or Sections R315-266-100 through 112, and in other units operated in accordance with applicable technical operating requirements; and certain non-combustive technologies, such as the Catalytic Extraction Process.

DEACT: Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.

FSUBS: Fuel substitution in units operated in accordance with applicable technical operating requirements.

HLVIT: Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.

IMERC: Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of Sections R315-264-340 through 351 and 40 CFR 265.340 through 352, which are adopted by reference. All wastewater and nonwastewater residues derived from this process shall then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories, e.g., High or Low Mercury Subcategories.

INCIN: Incineration in units operated in accordance with the technical operating requirements of Sections R315-264-340 through 351 and 40 CFR 265.340 through 352, which are adopted by reference.

LLEXT: Liquid-liquid extraction, often referred to as solvent extraction, of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that shall undergo either incineration, reuse as a fuel, or other recovery/reuse and a raffinate, extracted liquid waste, proportionately low in organics that shall undergo further treatment as specified in the standard.

MACRO: Macroencapsulation with surface coating materials such as polymeric organics, e.g., resins and plastics, or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to Section R315-260-10.

NEUTR: Neutralization with the following reagents, or waste reagents, or combinations of reagents: (1) Acids; (2) bases; or (3) water, including wastewaters, resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.

NLDBR: No land disposal based on recycling.

POLYM: Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 non-wastewaters which are chemical components in the manufacture of plastics.

PRECP: Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents, or waste reagents, are typically used alone or in combination: (1) Lime, i.e., containing oxides and/or hydroxides of calcium and/or magnesium; (2) caustic, i.e., sodium and/or potassium hydroxides; (3) soda ash, i.e., sodium carbonate; (4) sodium sulfide; (5) ferric sulfate or ferric chloride; (6) alum; or (7) sodium sulfate. Additional floculating, coagulation or similar reagents/processes that enhance sludge dewatering characteristics are not precluded from use.

RBERY: Thermal recovery of Beryllium.

RCGAS: Recovery/reuse of compressed gases including techniques such as reprocessing of the gases for reuse/resale; filtering/adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.

RCORR: Recovery of acids or bases utilizing one or more of the following recovery technologies: (1) Distillation, i.e., thermal concentration; (2) ion exchange; (3) resin or solid adsorption; (4) reverse osmosis; and/or (5) incineration for the recovery of acid-Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration, including ultrafiltration, and centrifugation, when used in conjunction with the above listed recovery technologies.

RLEAD: Thermal recovery of lead in secondary lead

smelters.

RMERC: Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit, or facility. shall be subject to one or more of the following: (a) a National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury; (b) a Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit; or (c) a state permit that establishes emission limitations, within meaning of section 302 of the Clean Air Act, for mercury. All wastewater and nonwastewater residues derived from this process shall then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories, e.g., High or Low Mercury Subcategories.

RMETL: Recovery of metals or inorganics utilizing one or more of the following direct physical/removal technologies: (1) Ion exchange; (2) resin or solid, i.e., zeolites, adsorption; (3) reverse osmosis; (4) chelation/solvent extraction; (5) freeze crystalization; (6) ultrafiltration and/or (7) simple precipitation, i.e., crystallization,- Note: This does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration, including ultrafiltration, and centrifugation, when used in conjunction with the above listed recovery technologies.

RORGS: Recovery of organics utilizing one or more of the following technologies: (1) Distillation; (2) thin film evaporation; (3) steam stripping; (4) carbon adsorption; (5) critical fluid extraction; (6) liquid-liquid extraction; (7) precipitation/crystallization, including freeze crystallization; or (8) chemical phase separation techniques, i.e., addition of acids, bases, demulsifiers, or similar chemicals;-Note: his does not preclude the use of other physical phase separation techniques such as a decantation, filtration, including ultrafiltration, and centrifugation, when used in conjunction with the above listed recovery technologies.

RTHRM: Thermal recovery of metals or inorganics from nonwastewaters in units identified as industrial furnaces according to Subsections R315-260-10(1), (6), (7), (11), and (12) under the definition of "industrial furnaces".

RZINC: Resmelting in high temperature metal recovery units for the purpose of recovery of zinc.

STABL: Stabilization with the following reagents, or waste reagents, or combinations of reagents: (1) Portland cement; or (2) lime/pozzolans, e.g., fly ash and cement kiln dust, -this does not preclude the addition of reagents, e.g., iron salts, silicates, and clays, designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic.

SSTRP: Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as temperature and pressure ranges, have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit, such as the number of separation stages and the internal column design, thus, resulting in a condensed extract high in organics that shall undergo either incineration, reuse as a fuel, or other recovery/reuse and an extracted wastewater that shall undergo further treatment as specified in the standard.

VTD: Vacuum thermal desorption of low-level radioactive hazardous mixed waste in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.

WETOX: Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals, e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues.

WTRRX: Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic/ignitable levels of gases released during the reaction.

Note 1: When a combination of these technologies, i.e., a treatment train, is specified as a single treatment standard, the order of application is specified in Section R315-268-42, Table 2 by indicating the five letter technology code that shall be applied first, then the designation "fb.," an abbreviation for "followed by," then the five letter technology code for the technology that shall be applied next, and so on.

Note 2: When more than one technology, or treatment train, are specified as alternative treatment standards, the five letter technology codes, or the treatment trains, are separated by a semicolon (;) with the last technology preceded by the word "OR".

This indicates that any one of these BDAT technologies or treatment trains can be used for compliance with the standard.

(b) Any person may submit an application to the Administrator demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achieved by methods specified in Subsection R315-268-42(a), (c), and (d) for wastes or specified in Table 1 of Section R315-268-45 for hazardous debris. The applicant shall submit information demonstrating that his treatment method is in compliance with federal, state, and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the Administrator may approve the use of the alternative treatment method if he finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in Subsections R315-268-42(a), (c), and (d) for wastes or in Table 1 of Section R315-268-45 for hazardous debris. Any approval shall be stated in writing and may contain such provisions and conditions as the Administrator deems appropriate. The person to whom such approval is issued shall comply with all limitations contained in such a determination.

(c) As an alternative to the otherwise applicable Sections R315-268-40 through 49 treatment standards, lab packs are eligible for land disposal provided the following requirements are met:

(1) The lab packs comply with the applicable provisions of Section R315-264-316 and 40 CFR 265.316, which is adopted by reference;

(2) The lab pack does not contain any of the wastes listed in Appendix IV to Rule R315-268;

(3) The lab packs are incinerated in accordance with the requirements of Sections R315-264-340 through 351, or 40 CFR 265.340 through 352, which are adopted by reference; and

(4) Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, and D011 are treated in compliance with the applicable treatment standards specified for such wastes in Sections R315-268-40 through 49.

(d) Radioactive hazardous mixed wastes are subject to the treatment standards in Section R315-268-40. Where treatment standards are specified for radioactive mixed wastes in the Table of Treatment Standards, those treatment standards shall govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste, as designated by EPA waste code, applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in Section R315-268-45.

R315-268-43. Land Disposal Restrictions -- Treatment Standards Expressed as Waste Concentrations.

For the requirements previously found in Section R315-268-43 and for treatment standards in Table CCW-Constituent Concentrations in Wastes, refer to Section R315-268-40.

R315-268-44. Land Disposal Restrictions -- Variance From a Treatment Standard.

(a) Based on a petition filed by a generator or treater of hazardous waste, the administrator may approve a variance from an applicable treatment standard if:

(1) it is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner shall demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) it is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though the treatment is technically possible. To show that this is the case, the petitioner shall either demonstrate that:

(i) treatment to the specified level or by the specified method is technically inappropriate, for example, resulting in

combustion of large amounts of mildly contaminated environmental media; or

(ii) for remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

(b) Each petition shall be submitted in accordance with the procedures in 40 CFR 260.20.

(c) Each petition shall include the following statement signed by the petitioner or an authorized representative:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(d) After receiving a petition for variance from a treatment standard, the administrator may request any additional information or samples that may be required to evaluate the petition. Additional copies of the complete petition may be requested as needed to send to affected states and Regional Offices.

(e) The administrator shall give public notice in the Federal Register of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a variance from a treatment standard shall be published in the Federal Register.

(f) A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards shall comply with the waste analysis requirements for restricted wastes found under Section R315-268-7.

(g) During the petition review process the applicant shall comply with the restrictions on land disposal under Rule R315-268 once the effective date for the waste has been reached.

(h) Based on a petition filed by a generator or treater of hazardous waste, the director may approve a site-specific variance from an applicable treatment standard if:

(1) it is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner shall demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) it is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though the treatment is technically possible. To show that this is the case, the petitioner shall either demonstrate that:

(i) treatment to the specified level or by the specified method is technically inappropriate, for example, resulting in combustion of large amounts of mildly contaminated environmental media if the treatment standard is not based on combustion of the media; or

(ii) for remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

(3) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below, that is, lower than, the concentrations necessary to minimize short- and long-term threats to human health and the environment. Treatment variances approved under Subsection R315-268-44(h) shall:

(i) at a minimum, impose alternative land disposal restriction treatment standards that, using a reasonable maximum exposure scenario:

(A) for carcinogens, achieve constituent concentrations that result in the total excess risk to an individual exposed over a lifetime generally falling within a range from 10^{-4} to 10^{-6}; and

(B) for constituents with noncarcinogenic effects, achieve constituent concentrations that an individual could be exposed to on a daily basis without appreciable risk of deleterious effect during a lifetime; and

(ii) not consider post land disposal controls.

(4) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below, that is, lower than, natural background concentrations at the site if the contaminated soil will be land disposed.

(5) Public notice and a reasonable opportunity for public comment shall be provided before granting or denying a petition.

(i) Each application for a site-specific variance from a treatment standard shall include the information in Subsection R315-260-19(d).

(j) After receiving an application for a site-specific variance from a treatment standard, the director may request any additional information or samples that may be required to evaluate the application.

(k) A generator, treatment facility, or disposal facility that is managing a waste covered by a site-specific variance from a treatment standard shall comply with the waste analysis requirements for restricted wastes found under Section R315-268-7.

(l) During the application review process the applicant for a site-specific variance shall comply with the restrictions on land disposal under Rule R315-268 once the effective date for the waste has been reached.

(m) For each variance the petitioner shall also demonstrate that compliance with any given treatment variance is enough to minimize threats to human health and the environment posed by land disposal of the waste. In evaluating this demonstration, EPA or the director, whichever applies, may take into account whether a treatment variance should be approved if the subject waste is to be used in a manner constituting disposal pursuant to Sections R315-266-20 through R315-266-23.

(n) Reserved.

(o) The following facilities are excluded from the treatment standards under Section R315-268-40 and are subject to the following constituent concentrations:

EnergySolutions LLC, Clive, UT -- This site-specific treatment variance applies only to solid treatment residue resulting from the vacuum thermal desorption (VTD) of P- and U-listed hazardous waste containing radioactive contamination, "mixed waste," at the EnergySolutions' LLC facility in Clive, Utah that otherwise requires CMBST as the LDR treatment standard. Once the P- and U-listed mixed waste are treated using VTD, the solid treatment residue can be land disposed at EnergySolutions' onsite RCRA permitted mixed waste landfill without further treatment. This treatment variance is conditioned on EnergySolutions complying with a Waste Family Demonstration Testing Plan specifically addressing the treatment of these P- and U-listed wastes, with this plan being implemented through a RCRA Part B permit modification for the VTD unit.

R315-268-45. Land Disposal Restrictions -- Treatment Standards for Hazardous Debris.

(a) Treatment standards. Hazardous debris shall be treated prior to land disposal as follows unless the Director determines under Subsection R315-261-3(f)(2) that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in Sections R315-268-40 through 49 for the waste contaminating the debris:

(1) General. Hazardous debris shall be treated for each "contaminant subject to treatment" defined by Subsection R315-268-45(b) using the technology or technologies identified in Table 1 of Section R315-268-45.

(2) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under Sections R315-261-21, 22, and 23, respectively, shall be deactivated by treatment using one of the technologies identified in Table 1 of Section R315-268-45.

(3) Mixtures of debris types. The treatment standards of Table 1 in Section R315-268-45 shall be achieved for each type of debris contained in a mixture of debris types. If an immobilization technology is used in a treatment train, it shall be the last treatment technology used.

(4) Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under Subsection R315-268-45(b) shall be treated for each contaminant using one or more treatment technologies identified in Table 1 of Section R315-268-45. If an immobilization technology is used in a treatment train, it shall be the last treatment technology used.

(5) Waste PCBs. Hazardous debris that is also a waste PCB under 40 CFR part 761 is subject to the requirements of either 40 CFR part 761 or the requirements of Section R315-268-45, whichever are more stringent.

(b) Contaminants subject to treatment. Hazardous debris shall be treated for each "contaminant subject to treatment." The contaminants subject to treatment shall be determined as follows:

(1) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by Section R315-261-24 are those EP constituents for which the debris exhibits the TC toxicity characteristic.

(2) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under Section R315-268-40.

(3) Cyanide reactive debris. Hazardous debris that is reactive because of cyanide shall be treated for cyanide.

(c) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table 1 of Section R315-268-45 and that does not exhibit a characteristic of hazardous waste identified under Sections R315-261-20 through 24 after treatment is not a hazardous waste and need not be managed in a hazardous waste facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 is a hazardous waste and shall be managed in a hazardous waste facility.

(d) Treatment residuals

(1) General requirements. Except as provided by Subsections R315-268-45(d)(2) and (d)(4):

(i) Residue from the treatment of hazardous debris shall be separated from the treated debris using simple physical or mechanical means; and

(ii) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by Sections R315-268-40 through 49 for the waste contaminating the debris.

(2) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris, other than cyanide-reactive, that is not contaminated with a contaminant subject to treatment defined by Subsection R315-268-45(b), shall be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of Sections R315-268-40 through 49.

(3) Cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide shall meet the treatment standards for D003 in "Treatment Standards for Hazardous Wastes" at Section R315-268-40.

(4) Ignitable nonwastewater residue. Ignitable nonwastewaster residue containing equal to or greater than 10% total organic carbon is subject to the technology specified in the treatment standard for D001: Ignitable Liquids.

(5) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of Section R315-268-45.

Table 1-Alternative Treatment Standards For Hazardous Debris, including footnotes found in 40 CFR 268.45, 2015 edition, is adopted and incorporated by reference.

R315-268-46. Land Disposal Restrictions -- Alternative Treatment Standards Based on HTMR.

For the treatment standards previously found in Section R315-268-46, refer to Section R315-268-40.

R315-268-48. Land Disposal Restrictions -- Universal Treatment Standards.

(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for

underlying hazardous constituents as defined in Subsection R315-268-2(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

Table

Universal Treatment Standards (UTS)

Note: NA means not applicable

Regulated constituent common name	CAS[1] number	Wastewater standard Concentration[2] in mg/l	Nonwastewater standard Concentration[3] in mg/kg unless noted as "mg/l TCLP"
Organic Constituents			
Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylamide	79-06-1	19	23
Acrylonitrile	107-13-1	0.24	84
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
alpha-BHC	319-84-6	0.00014	0.066
beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BHC	58-89-9	0.0017	0.066
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Bromomethane/Methyl bromide	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol/Dinoseb	88-85-7	0.066	2.5
Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
Carbon tetrachloride	56-23-5	0.057	6.0
Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0
Chlorobenzilate	510-15-6	0.10	NA
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
Chlorodibromomethane	124-48-1	0.057	15
Chloroethane	75-00-3	0.27	6.0
bis(2-Chloroethoxy) methane	111-91-1	0.036	7.2
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
Chloroform	67-66-3	0.046	6.0
bis(2-Chloroisopropyl) ether	39638-32-9	0.055	7.2
p-Chloro-m-cresol	59-50-7	0.018	14
2-Chloroethyl vinyl ether	110-75-8	0.062	NA
Chloromethane/Methyl chloride	74-87-3	0.19	30
2-Chloronaphthalene	91-58-7	0.055	5.6
2-Chloropchenol	95-57-8	0.044	5.7
3-Chloropropylene	107-05-1	0.036	30

Chrysene	218-01-9	0.059	3.4	
p-Cresidine	120-71-8	0.010	0.66	
o-Cresol	95-48-7	0.11	5.6	
m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6	
p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6	
Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP	
o,p'-DDD	53-19-0	0.023	0.087	
p,p'-DDD	72-54-8	0.023	0.087	
o,p'-DDE	3424-82-6	0.031	0.087	
p,p'-DDE	72-55-9	0.031	0.087	
o,p'-DDT	789-02-6	0.0039	0.087	
p,p'-DDT	50-29-3	0.0039	0.087	
Dibenz(a,h)anthracene	53-70-3	0.055	8.2	
Dibenz(a,e)pyrene	192-65-4	0.061	NA	
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15	
1,2-Dibromoethane/ Ethylene dibromide	106-93-4	0.028	15	
Dibromomethane	74-95-3	0.11	15	
m-Dichlorobenzene	541-73-1	0.036	6.0	
o-Dichlorobenzene	95-50-1	0.088	6.0	
p-Dichlorobenzene	106-46-7	0.090	6.0	
Dichlorodifluoromethane	75-71-8	0.23	7.2	
1,1-Dichloroethane	75-34-3	0.059	6.0	
1,2-Dichloroethane	107-06-2	0.21	6.0	
1,1-Dichloroethylene	75-35-4	0.025	6.0	
trans-1,2-Dichloroethylene	156-60-5	0.054	30	
2,4-Dichlorophenol	120-83-2	0.044	14	
2,6-Dichlorophenol	87-65-0	0.044	14	
2,4-Dichlorophenoxyacetic acid/2,4-D	94-75-7	0.72	10	
1,2-Dichloropropane	78-87-5	0.85	18	
cis-1,3-Dichloropropylene	10061-01-5	0.036	18	
trans-1,3-Dichloropropylene	10061-02-6	0.036	18	
Dieldrin	60-57-1	0.017	0.13	
Diethyl phthalate	84-66-2	0.20	28	
p-Dimethylaminoazobenzene	60-11-7	0.13	NA	
2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66	
2,4-Dimethyl phenol	105-67-9	0.036	14	
Dimethyl phthalate	131-11-3	0.047	28	
Di-n-butyl phthalate	84-74-2	0.057	28	
1,4-Dinitrobenzene	100-25-4	0.32	2.3	
4,6-Dinitro-o-cresol	534-52-1	0.28	160	
2,4-Dinitrophenol	51-28-5	0.12	160	
2,4-Dinitrotoluene	121-14-2	0.32	140	
2,6-Dinitrotoluene	606-20-2	0.55	28	
Di-n-octyl phthalate	117-84-0	0.017	28	
Di-n-propylnitrosamine	621-64-7	0.40	14	
1,4-Dioxane	123-91-1	12.0	170	
Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13	
Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13	
1,2-Diphenylhydrazine	122-66-7	0.087	NA	
Disulfoton	298-04-4	0.017	6.2	
Endosulfan I	959-98-8	0.023	0.066	
Endosulfan II	33213-65-9	0.029	0.13	
Endosulfan sulfate	1031-07-8	0.029	0.13	
Endrin	72-20-8	0.0028	0.13	
Endrin aldehyde	7421-93-4	0.025	0.13	
Ethyl acetate	141-78-6	0.34	33	
Ethyl benzene	100-41-4	0.057	10	
Ethyl cyanide/ Propanenitrile	107-12-0	0.24	360	
Ethyl ether	60-29-7	0.12	160	
bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28	
Ethyl methacrylate	97-63-2	0.14	160	
Ethylene oxide	75-21-8	0.12	NA	
Famphur	52-85-7	0.017	15	

Fluoranthene	206-44-0	0.068	3.4	
Fluorene	86-73-7	0.059	3.4	
Heptachlor	76-44-8	0.0012	0.066	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035	.0025	
1,2,3,4,6,7,8-Heptachlorodibenzofluran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	0.000035	.0025	
1,2,3,4,7,8,9-Heptachlorodibenzofluran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	0.000035	.0025	
Heptachlor epoxide	1024-57-3	0.016	0.066	
Hexachlorobenzene	118-74-1	0.055	10	
Hexachlorobutadiene	87-68-3	0.055	5.6	
Hexachlorocyclopentadiene	77-47-4	0.057	2.4	
HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001	
HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001	
Hexachloroethane	67-72-1	0.055	30	
Hexachloropropylene	1888-71-7	0.035	30	
Indeno(1,2,3-c,d) pyrene	193-39-5	0.0055	3.4	
Iodomethane	74-88-4	0.19	65	
Isobutyl alcohol	78-83-1	5.6	170	
Isodrin	465-73-6	0.021	0.066	
Isosafrole	120-58-1	0.081	2.6	
Kepone	143-50-0	0.0011	0.13	
Methacrylonitrile	126-98-7	0.24	84	
Methanol	67-56-1	5.6	0 .75 mg/l TCLP	
Methapyrilene	91-80-5	0.081	1.5	
Methoxychlor	72-43-5	0.25	0.18	
3-Methylcholanthrene	56-49-5	0.0055	15	
4,4-Methylene bis (2-chloroaniline)	101-14-4	0.50	30	
Methylene chloride	75-09-2	0.089	30	
Methyl ethyl ketone	78-93-3	0.28	36	
Methyl isobutyl ketone	108-10-1	0.14	33	
Methyl methacrylate	80-62-6	0.14	160	
Methyl methanesulfonate	66-27-3	0.018	NA	
Methyl parathion	298-00-0	0.014	4.6	
Naphthalene	91-20-3	0.059	5.6	
2-Naphthylamine	91-59-8	0.52	NA	
o-Nitroaniline	88-74-4	0.27	14	
p-Nitroaniline	100-01-6	0.028	28	
Nitrobenzene	98-95-3	0.068	14	
5-Nitro-o-toluidine	99-55-8	0.32	28	
o-Nitrophenol	88-75-5	0.028	13	
p-Nitrophenol	100-02-7	0.12	29	
N-Nitrosodiethylamine	55-18-5	0.40	28	
N-Nitrosodimethylamine	62-75-9	0.40	2.3	
N-Nitroso-di-n-butylamine	924-16-3	0.40	17	
N-Nitrosomethylethylamine	10595-95-6	0.40	2.3	
N-Nitrosomorpholine	59-89-2	0.40	2.3	
N-Nitrosopiperidine	100-75-4	0.013	35	
N-Nitrosopyrrolidine	930-55-2	0.013	35	
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063	0.005	
1,2,3,4,6,7,8,9-Octachlorodibenzofluran (OCDF)	39001-02-0	0.000063	0.005	
Parathion	56-38-2	0.014	4.6	
Total PCBs (sum of all PCB isomers, or all Aroclors)[8]	1336-36-3	0.10	10	
Pentachlorobenzene	608-93-5	0.055	10	
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001	
PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001	
Pentachloroethane	76-01-7	0.055	6.0	
Pentachloronitrobenzene	82-68-8	0.055	4.8	
Pentachlorophenol	87-86-5	0.089	7.4	
Phenacetin	62-44-2	0.081	16	
Phenanthrene	85-01-8	0.059	5.6	
Phenol	108-95-2	0.039	6.2	

1,3-Phenylenediamine	108-45-2	0.010		0.66
Phorate	298-02-2	0.021		4.6
Phthalic acid	100-21-0	0.055		28
Phthalic anhydride	85-44-9	0.055		28
Pronamide	23950-58-5	0.093		1.5
Pyrene	129-00-0	0.067		8.2
Pyridine	110-86-1	0.014		16
Safrole	94-59-7	0.081		22
Silvex/2,4,5-TP	93-72-1	0.72		7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055		14
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063		0.001
TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063		0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057		6.0
1,1,2,2-Tetrachloroethane	79-34-5	0.057		6.0
Tetrachloroethylene	127-18-4	0.056		6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030		7.4
Toluene	108-88-3	0.080		10
Toxaphene	8001-35-2	0.0095		2.6
Tribromomethane/Bromoform	75-25-2	0.63		15
1,2,4-Trichlorobenzene	120-82-1	0.055		19
1,1,1-Trichloroethane	71-55-6	0.054		6.0
1,1,2-Trichloroethane	79-00-5	0.054		6.0
Trichloroethylene	79-01-6	0.054		6.0
Trichlorofluoromethane	75-69-4	0.020		30
2,4,5-Trichlorophenol	95-95-4	0.18		7.4
2,4,6-Trichlorophenol	88-06-2	0.035		7.4
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T	93-76-5	0.72		7.9
1,2,3-Trichloropropane	96-18-4	0.85		30
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057		30
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11		0.10
Vinyl chloride	75-01-4	0.27		6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32		30
Inorganic Constituents				
Antimony	7440-36-0	1.9	TCLP	1.15 mg/l
Arsenic	7440-38-2	1.4	TCLP	5.0 mg/l
Barium	7440-39-3	1.2	TCLP	21 mg/l
Beryllium	7440-41-7	0.82	TCLP	1.22 mg/l
Cadmium	7440-43-9	0.69	TCLP	0.11 mg/l
Chromium (Total)	7440-47-3	2.77	TCLP	0.60 mg/l
Cyanides (Total)[4]	57-12-5	1.2		590
Cyanides (Amenable)[4]	57-12-5	0.86		30
Fluoride[5]	16984-48-8	35		NA
Lead	7439-92-1	0.69	TCLP	0.75 mg/l
Mercury---Nonwastewater from Retort	7439-97-6	NA	TCLP	0.20 mg/l
Mercury-All Others	7439-97-6	0.15	TCLP	0.025 mg/l
Nickel	7440-02-0	3.98	TCLP	11 mg/l
Selenium[7]	7782-49-2	0.82	TCLP	5.7 mg/l
Silver	7440-22-4	0.43	TCLP	0.14 mg/l
Sulfide[5]	18496-25-8	14		NA
Thallium	7440-28-0	1.4	TCLP	0.20 mg/l
Vanadium[5]	7440-62-2	4.3	TCLP	1.6 mg/l
Zinc[5]	7440-66-6	2.61	TCLP	4.3 mg/l

Footnotes to Table UTS

1 CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with it's salts and/or esters, the CAS number is given for the parent compound only.
2 Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.
3 Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, inpart, based upon incineration in units operated in accordance with the technical requirements of Sections R315-264-340 through 351 or 40 CFR 265.340 through 352, which are adopted by reference, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in Subsection R315-268-40(d).
All concentration standards for nonwastewaters are based on analysis of grab samples.
4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in Section R315-260-11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
5 These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at Subsection R315-268-2(i).
6 Reserved
7 This constituent is not an underlying hazardous constituent as defined at Subsection R315-268-2(i) because its UTS level is greater than its TC level, thus a treatment selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.
8 This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004-D011 only.

R315-268-49. Land Disposal Restrictions -- Alternative LDR Treatment Standards for Contaminated Soil.

(a) Applicability. Persons defined in Subsection R315-268-1(b) shall comply with LDRs before placing soil that exhibits a characteristic of hazardous waste or exhibited a characteristic of hazardous waste when it was generated, into a land disposal unit. The following chart describes whether persons defined in Subsection R315-268-1(b) shall comply with LDRs before placing soil contaminated by listed hazardous waste into a land disposal unit:

Table 1

If LDRs	And if LDRs	And if	Then persons defined in Subsection R315-268-1(b)
Applied to the listed waste when it contaminated the soil*.	Apply to the listed waste now.		Shall comply with LDRs.
Did not apply to the listed waste when it contaminated the soil*.	Apply to the listed waste now.	The soil is determined to contain the listed waste when the soil is first generated.	Shall comply with LDRs.
Did not apply to the listed waste when it contaminated the soil*.	Apply to the listed waste now.	The soil is determined not to contain the listed waste	Need not comply with LDRs.

		when the soil is first generated.	
Did not apply to the listed waste when it contaminated the soil*.	Do not apply to the listed waste now.		Need not comply with LDRs.
*For dates of LDR applicability, see Rule R315-268 Appendix VII. To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.			

(b) Before land disposal, contaminated soil identified by Subsection R315-268-49(a) as needing to comply with LDRs shall be treated according to the applicable treatment standards specified in Subsection R315-268-49(c) or according to the Universal Treatment Standards specified in Section R315-268-48 applicable to the contaminating listed hazardous waste or the applicable characteristic of hazardous waste if the soil is characteristic, or both. The treatment standards specified in Subsection R315-268-49(c) and the Universal Treatment Standards may be modified through a treatment variance approved in accordance with Section R315-268-44.

(c) Treatment standards for contaminated soils. Before land disposal, contaminated soil identified by Subsection R315-268-49(a) as needing to comply with LDRs shall be treated according to the standards specified in Subsection R315-268-49(c) or according to the Universal Treatment Standards specified in Section R315-268-48.

(1) Any soils. Before land disposal, the constituents subject to treatment shall be treated as follows:

(A) For non-metals except carbon disulfide, cyclohexanone, and methanol, treatment shall achieve 90% reduction in total constituent concentrations, except as provided by Subsection R315-268-49(c)(1)(C).

(B) For metals and carbon disulfide, cyclohexanone, and methanol, treatment shall achieve 90% reduction in constituent concentrations as measured in leachate from the treated media, tested according to the TCLP, or 90% reduction in total constituent concentrations, when a metal removal treatment technology is used, except as provided by Subsection R315-268-49(c)(1)(C).

(C) If treatment of any constituent subject to treatment to a 90% reduction standard would result in a concentration less than ten times the universal treatment standard for that constituent, treatment to achieve constituent concentrations less than ten times the universal treatment standard is not required. Universal Treatment Standards are identified in Section R315-268-48 Table UTS.

(2) Soils that exhibit the characteristic of ignitability, corrosivity, or reactivity. In addition to the treatment required by Subsection R315-268-49(c)(1), before land disposal, soils that exhibit the characteristic of ignitability, corrosivity, or reactivity shall be treated to eliminate these characteristics.

(3) Soils that contain nonanalyzable constituents. In addition to the treatment requirements of Subsections R315-268-49(c)(1) and R315-268-49(c)(2), before land disposal, the following treatment is required for soils that contain nonanalyzable constituents:

(A) for soil that contains only analyzable and nonanalyzable organic constituents, treatment of the analyzable organic constituents to the levels specified in Subsections R315-268-49(c)(1) and R315-268-49(c)(2); or

(B) for soil that contains only nonanalyzable constituents, treatment by the methods specified in Section R315-268-42 for the waste contained in the soil.

(d) Constituents subject to treatment. When applying the soil treatment standards in Subsection R315-268-49(c), constituents subject to treatment are any constituents listed in Section R315-268-48 Table UTS-Universal Treatment Standards that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium, zinc, and that are present at concentrations greater than ten times the universal treatment standard. PCBs are not a constituent subject to treatment in any given volume of soil that exhibits the toxicity characteristic solely because of the presence of metals.

(e) Management of treatment residuals. Treatment residuals from treating contaminated soil identified by Subsection R315-268-49(a) as needing to comply with LDRs shall be managed as follows:

(1) Soil residuals are subject to the treatment standards of Section R315-268-49.

(2) Non-soil residuals are subject to:

(A) for soils contaminated by listed hazardous waste, the hazardous waste standards applicable to the listed hazardous waste; and

(B) for soils that exhibit a characteristic of hazardous waste, if the non-soil residual also exhibits a characteristic of hazardous waste, the treatment standards applicable to the characteristic hazardous waste.

R315-268-50. Land Disposal Restrictions -- Prohibitions on Storage of Restricted Wastes.

(a) Except as provided in Section R315-268-50, the storage of hazardous wastes restricted from land disposal under Sections R315-268-20 through R315-268-39 is prohibited, unless the following conditions are met:

(1) A generator stores such wastes in tanks, containers, or containment buildings on-site solely for the purpose of the

accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in Sections R315-262-16 and R315-262-17, and Rules R315-264 and R315-265.

(2) An owner or operator of a hazardous waste treatment, storage, or disposal facility stores such wastes in tanks, containers, or containment buildings solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and:

(i) Each container is clearly marked to identify its contents and with:

(A) The words "Hazardous Waste";

(B) The applicable EPA hazardous waste numbers, EPA hazardous waste codes, in Sections R315-261-20 through R315-261-24 and R315-261-30 through R315-261-35; or use a nationally recognized electronic system, such as bar coding, to identify the EPA hazardous waste numbers;

(C) An indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704; and

(D) The date each period of accumulation begins;

(ii) Each tank is clearly marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility. Regardless of whether the tank itself is marked, an owner or operator shall comply with the operating record requirements specified in Section R315-264-73 or R315-265-73.

(3) A transporter stores manifested shipments of such wastes at a transfer facility for 10 days or less.

(4) A healthcare facility accumulates such wastes in containers on site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal and the healthcare facility complies with the applicable requirements in Sections R315-266-500 through R315-266-503.

(5) A reverse distributor accumulates such wastes in containers on site solely for the purpose of the accumulation of such quantities of hazardous waste pharmaceuticals as necessary to facilitate proper recovery, treatment, or disposal and the reverse distributor complies with Section R315-266-510.

(b) An owner or operator of a treatment, storage or disposal facility may store such wastes for up to one year unless the Director can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(c) An owner or operator of a treatment, storage or disposal facility may store such wastes beyond one year; however, the owner or operator bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(d) If a generator's waste is exempt from a prohibition on the type of land disposal utilized for the waste, for example, because of an approved case-by-case extension under Section R315-268-5, an approved Section R315-268-6 petition, or a national capacity variance under Sections R315-268-20 through R315-268-39, the prohibition in Subsection R315-268-50(a) does not apply during the period of such exemption.

(e) The prohibition in Subsection R315-268-50(a) does not apply to hazardous wastes that meet the treatment standards specified under Sections R315-268-41, R315-268-42, and R315-268-43 or the treatment standards specified under the variance in Section R315-268-44, or, where treatment standards have not been specified, is in compliance with the applicable prohibitions specified in Section R315-268-32 or RCRA section 3004.

(f) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm shall be stored at a facility that meets the requirements of 40 CFR 761.65(b) and shall be removed from storage and treated or disposed as required by Rule R315-268 within one year of the date when such wastes are first placed into storage. Subsection R315-268-50(c) does not apply to such PCB wastes prohibited under Section R315-268-32.

(g) The prohibition and requirements in Section R315-268-50 do not apply to hazardous remediation wastes stored in a staging pile approved pursuant to Section R315-264-554.

R315-268-51. Appendix III to Rule R315-268 - List of Halogenated Organic Compounds Regulated Under Section R315-268-32.

In determining the concentration of HOCs in a hazardous waste for purposes of the Section R315-268-32 land disposal prohibition, the Director has defined the HOCs that shall be included in a calculation as any compounds having a carbon-halogen bond which are listed in this Appendix, see Section R315-268-2. Appendix III to Rule R315-268 consists of the following compounds:

I. Volatiles

1. Bromodichloromethane
2. Bromomethane
3. Carbon Tetrachloride
4. Chlorobenzene
5. 2-Chloro-1,3-butadiene
6. Chlorodibromomethane
7. Chloroethane

8. 2-Chloroethyl vinyl ether
9. Chloroform
10. Chloromethane
11. 3-Chloropropene
12. 1,2-Dibromo-3-chloropropane
13. 1,2-Dibromomethane
14. Dibromomethane
15. Trans-1,4-Dichloro-2---butene
16. Dichlorodifluoromethane
17. 1,1-Dichloroethane
18. 1,2-Dichloroethane
19. 1,1-Dichloroethylene
20. Trans-1,2-Dichloroethene
21. 1,2-Dichloropropane
22. Trans-1,3-Dichloropropene
23. cis-1,3-Dichloropropene
24. Iodomethane
25. Methylene chloride
26. 1,1,1,2-Tetrachloroethane
27. 1,1,2,2-Tetrachloroethane
28. Tetrachloroethene
29. Tribromomethane
30. 1,1,1-Trichloroethane
31. 1,1,2-Trichloroethane
32. Trichlorothene
33. Trichloromonofluoromethane
34. 1,2,3-Thrichloropropane
35. Vinyl Chloride

II. Semivolatiles

1. Bis(2-chloroethoxy)ethane
2. Bis(2-chloroethyl)ether
3. Bis(2-chloroisopropyl)ether
4. p-Chloroaniline
5. Chlorobenzilate
6. p-Chloro-m-cresol
7. 2-Chloronaphthalene
8. 2-Chlorphenol
9. 3-Chloropropionitrile
10. m-Dichlorobenzene
11. o-Dichlorobenzene
12. p-Dichlorobenzene
13. 3.3'-Dichlorobenzidine
14. 2,4-Dichlorophenol
15. 2,6-Dichlorophenol
16. Hexachlorobenzene
17. Hexachlorobutadiene
18. Hexachlorocyclopentadiene
19. Hexachloroethane
20. Hexachloroprophene
21. Hexachlorpropene
22. 4,4'-Methylenebis(2-chloroanaline)
23. Pentachlorobenzene
24. Pentachloroethane
25. Pentachloronitrobenzene
26. Pentachlorophenol
27. Pronamide
28. 1,2,4,5-Tetrachlorobenzene
29. 2,3,4,6-Tetrachlorophenol
30. 1,2,4-Trichlorobenzene
31. 2,4,5-Trichlorophenol
32. 2,4,6-Trichlorophenol
33. Tris(2,3-dibromopropyl)phosphate

III. Organochlorine Pesticides
1. Aldrin
2. alpha-BHC
3. beta-BHC
4. delta-BHC
5. gamma-BHC
6. Chlorodane
7. DDD
8. DDE
9. DDT
10. Dieldrin
11. Endosulfan I
12. Endosulfan II
13. Endrin
14. Endrin aldehyde
15. Heptachlor
16. Heptachlor epoxide
17. Isodrin
18. Kepone
19. Methoxyclor
20. Toxaphene
IV. Phenoxyacetic Acid Herbicides
1. 2,4-Dichlorophenoxyacetic acid
2. Silvex
3. 2,4,5-T
V. PCBs
1. Aroclor 1016
2. Aroclor 1221
3. Aroclor 1232
4. Aroclor 1242
5. Aroclor 1248
6. Aroclor 1254
7. Aroclor 1260
8. PCBs not otherwise specified
VI. Dioxins and Furans
1. Hexachlorodibenzo-p-dioxins
2. Hexachlorodibenzofuran
3. Pentachlorodibenzo-p-dioxins
4. Pentachlorodibenzofuran
5. Tetrachlorodibenzo-p-dioxins
6. Tetrachlorodibenzofuran
7. 2,3,7,8-Tetrachlorodibenzo-p-dioxin

R315-268-52. Appendix IV to Rule R315-268 - Wastes Excluded from Lab Packs Under the Alternative Treatment Standards of Subsection R315-268-42(c).

Hazardous waste with the following EPA Hazardous Waste Codes may not be placed in lab packs under the alternative lab pack treatment standards of Subsection R315-268-42(c): D009, F019, K003, K004, K005, K006, K062, K071, K100, K106, P010, P011, P012, P076, P078, U134, U151.

R315-268-53. Appendix VI to Rule R315-268 - Recommended Technologies to Achieve Deactivation of Characteristics in Section R315-268-42.

The treatment standard for many characteristic wastes is stated in the Section R315-268-40 Table of Treatment Standards as "Deactivation and meet UTS." The Director has determined that many technologies, when used alone or in combination, can achieve the deactivation portion of the treatment standard. Characteristic wastes that are not managed in a facility regulated by the Clean Water Act (CWA) or in a CWA-equivalent facility, and that also contain underlying hazardous constituents, see Subsection R315-268-2(i), shall be treated not only by a "deactivating" technology to remove the characteristic, but also to achieve the universal treatment standards (UTS) for underlying hazardous constituents. The following appendix presents a partial list of technologies, utilizing the five letter technology codes established in Section R315-268-42 Table 1, that may be useful in meeting the treatment standard. Use of these specific technologies is not mandatory and does not preclude direct reuse, recovery, and/or the use of other pretreatment technologies, provided deactivation is achieved and underlying hazardous constituents are treated to achieve the UTS.

Table

Waste code/subcategory	Nonwastewaters	Wastewaters
D001 Ignitable Liquids based on R315-261-21(a)(1)-Low TOC Nonwastewater Subcategory, containing 1% to <10% TOC	RORGS INCIN WETOX CHOXD BIODG	n.a.
D001 Ignitable Liquids based on Subsection R315-261-21(a)(1) -Ignitable Wastewater Subcategory, containing <1% TOC	n.a.	RORGS INCIN WETOX CHOXD BIODG
D001 Compressed Gases based on Subsection R315-261-21(A)(3)	RCGAS INCIN FSUBS ADGAS fb. INCIN ADGAS fb. (CHOXD; or CHRED)	n.a.
D001 Ignitable Reactives based on Subsection R315-261-21(a)(2)	WTRRX CHOXD CHRED STABL INCIN	n.a.
D001 Ignitable Oxidizers based on Subsection R315-261-21(a)(4)	CHRED INCIN	CHRED INCIN
D002 Acid Subcategory based on Subsection R315-261-22(a)(1) with pH less than or equal to 2	RCORR NEUTR INCIN	NEUTR
D002 Alkaline Subcategory based on Subsection R315-261-22(a)(1) with pH greater than or equal to 12.5	NEUTR INCIN	NEUTR INCIN
D002 Other Corrosives based on Subsection R315-261-22(a)(2)	CHOXD CHRED INCIN STABL	CHOXD CHRED INCIN
D003 Water Reactives based on Subsections R315-268-23(a)(2), (3), and (4)	INCIN WTRRX CHOXD CHRED	n.a.
D003 Reactive Sulfides based on Subsection R315-261-23(a)(5)	CHOXD CHRED INCIN STABL	CHOXD CHRED BIODG INCIN
D003 Explosives based on Subsection R315-261-23(a)(6), (7), and (8)	INCIN CHOXD CHRED	INCIN CHOXD CHRED
D003 Other Reactives based on Subsection R315-261-23(a)(1)	INCIN CHOXD CHRED CHRED BIODG CARBN	INCIN CHOXD
K044 Wastewater treatment sludges from the manufacturing and processing of explosives	CHOXD CHRED INCIN CARBN INCIN	CHOXD CHRED BIODG
K045 Spent carbon from the treatment of wastewaters containing explosives	CHOXD CHRED INCIN CARBN INCIN	CHOXD CHRED BIODG
K047 Pink/red water from TNT operations	CHOXD CHRED INCIN CARBN INCIN	CHOXD CHRED BIODG

Note: "n.a." stands for "not applicable"; "fb." stands for "followed by".

R315-268-54. Appendix VII to Rule R315-268 - LDR Effective Dates of Surface Disposed Prohibited Hazardous Wastes.

Table 1

Effective Dates of Surface Disposed Wastes,
Non-Soil and Debris, Regulated in the
LDRS[a] -- Comprehensive List

Waste Code	Waste category	Effective date
D001[c]	All (except High TOC Ignitable Liquids)	Aug. 9, 1993.
D001	High TOC Ignitable Liquids,	Aug. 8, 1990.
D002[c]	All	Aug. 9, 1993.
D003	Newly identified surface-disposed elemental phosphorus processing wastes.	May 26, 2000
D004	Newly identified D004 and mineral processing wastes	Aug. 24, 1998.
D004	Mixed radioactive/newly identified D004 or mineral processing wastes	May 26, 2000
D005	Newly identified D005 and mineral processing wastes	Aug. 24, 1998.
D005	Mixed radioactive/newly identified D005 or mineral processing wastes	May 26, 2000.
D006	Newly identified D006 and mineral processing wastes	Aug. 24, 1998.
D006	Mixed radioactive/newly identified D006 or mineral processing wastes	May 26, 2000.
D007	Newly identified D007 and mineral processing wastes	Aug. 24, 1998.
D007	Mixed radioactive/newly identified D007 or mineral processing wastes	May 26, 2000.
D008	Newly identified D008 and mineral processing waste	Aug. 24, 1998.
D008	Mixed radioactive/newly identified D008 or mineral processing wastes,	May 26, 2000.
D009	Newly identified D009 and mineral processing waste	Aug. 24, 1998.
D009	Mixed radioactive/newly identified D009 or mineral processing wastes	May 26, 2000.
D010	Newly identified D010 and mineral processing wastes	Aug. 24, 1998.
D010	Mixed radioactive/newly identified D010 or mineral processing wastes	May 26, 2000.
D011	Newly identified D011 and mineral processing wastes	Aug. 24, 1998.
D011	Mixed radioactive/newly identified D011 or mineral processing wastes	May 26, 2000.
D012 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D013 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D014 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D015 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D016 (that exhibit the toxicity characteristic	All	Dec. 14, 1994

based on the TCLP)[d]

D017 (that exhibit the toxicity characteristic based on the TCLP)[d]	All	Dec. 14, 1994
D018	Mixed with radioactive wastes	Sept.19, 1996.
D018	All others	Dec. 19, 1994.
D019	Mixed with radioactive wastes	Sept.19, 1996.
D019	All others	Dec. 19, 1994.
D020	Mixed with radioactive wastes	Sept.19, 1996.
D020	All others	Dec. 19, 1994.
D021	Mixed with radioactive wastes	Sept.19, 1996.
D021	All others	Dec. 19, 1994.
D022	Mixed with radioactive wastes	Sept.19, 1996.
D022	All others	Dec. 19, 1994.
D023	Mixed with radioactive wastes	Sept.19, 1996.
D023	All others	Dec. 19, 1994.
D024	Mixed with radioactive wastes	Sept.19, 1996.
D024	All others	Dec. 19, 1994.
D025	Mixed with radioactive wastes	Sept.19, 1996.
D025	All others	Dec. 19, 1994.
D026	Mixed with radioactive wastes	Sept.19, 1996.
D026	All others	Dec. 19, 1994.
D027	Mixed with radioactive wastes	Sept.19, 1996.
D027	All others	Dec. 19, 1994.
D028	Mixed with radioactive wastes	Sept.19, 1996.
D028	All others	Dec. 19, 1994.
D029	Mixed with radioactive wastes	Sept.19, 1996.
D029	All others	Dec. 19, 1994.
D030	Mixed with radioactive wastes	Sept.19, 1996.
D030	All others	Dec. 19, 1994.
D031	Mixed with radioactive wastes	Sept.19, 1996.
D031	All others	Dec. 19, 1994.
D032	Mixed with radioactive wastes	Sept.19, 1996.
D032	All others	Dec. 19, 1994.
D033	Mixed with radioactive wastes	Sept.19, 1996.
D033	All others	Dec. 19, 1994.
D034	Mixed with radioactive wastes	Sept.19, 1996.
D034	All others	Dec. 19, 1994.
D035	Mixed with radioactive wastes	Sept.19, 1996.
D035	All others	Dec. 19, 1994.
D036	Mixed with radioactive wastes	Sept.19, 1996.
D036	All others	Dec. 19, 1994.

D037	Mixed with radioactive wastes	Sept.19, 1996.
D037	All others	Dec. 19, 1994.
D038	Mixed with radioactive wastes	Sept.19, 1996.
D038	All others	Dec. 19, 1994.
D039	Mixed with radioactive wastes	Sept.19, 1996.
D039	All others	Dec. 19, 1994.
D040	Mixed with radioactive wastes	Sept.19, 1996.
D040	All others	Dec. 19, 1994.
D041	Mixed with radioactive wastes	Sept.19, 1996.
D041	All others	Dec. 19, 1994.
D042	Mixed with radioactive wastes	Sept.19, 1996.
D042	All others	Dec. 19, 1994.
D043	Mixed with radioactive wastes	Sept.19, 1996.
D043	All others	Dec. 19, 1994.
F001	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids.	Nov. 8, 1988
F001	All others	Nov. 8, 1986.
F002 (1,1,2-trichloroethane)	Wastewater and Nonwastewater	Aug. 8, 1990.
F002	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988
F002	All others	Nov. 8, 1986.
F003	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids,	Nov. 8, 1988.
F003	All others	Nov. 8, 1986.
F004	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988.
F004	All others	Nov. 8, 1986.
F005 (benzene, 2-ethoxy ethanol, 2-nitropropane)	Wastewater and Nonwastewater	Aug. 8, 1990.
F005	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids	Nov. 8, 1988.
F005	All others	Nov. 8, 1986.
F006	Wastewater	Aug. 8, 1990.
F006	Nonwastewater	Aug. 8, 1988.
F006 (cyanides)	Nonwastewater	July 8, 1989.
F007	All	July 8, 1989.
F008	All	July 8, 1989.
F009	All	July 8, 1989.
F010	All	July 8, 1989.

F011 (cyanides)	Nonwastewater	Dec. 8, 1989.
F011	All others	July 8, 1989.
F012 (cyanides)	Nonwastewater	Dec. 8, 1989.
F012	All others	July 8, 1989.
F019	All	Aug. 8, 1990.
F020	All	Aug. 8, 1988.
F021	All	Aug. 8, 1988.
F025	All	Aug. 8, 1990.
F026	All	Aug. 8, 1988.
F027	All	Aug. 8, 1988.
F028	All	Aug. 8, 1988.
F032	Mixed with radioactive wastes	May 12, 1999
F032	All others	Aug. 12, 1997.
F034	Mixed with radioactive wastes	May 12, 1999
F034	All others	Aug. 12, 1997.
F035	Mixed with radioactive wastes	May 12, 1999.
F035	All others	Aug. 12, 1997.
F037	Not generated from surface impoundment cleanouts or closures	June 30, 1993.
F037	Generated from surface impoundment cleanouts or closures	June 30, 1994.
F037	Mixed with radioactive wastes	June 30, 1994.
F038	Not generated from surface impoundment cleanouts or closures	June 30, 1993.
F038	Mixed with radioactive wastes	June 30, 1994.
F038	Mixed with radioactive wastes	June 30, 1994.
F039	Wastewater	Aug. 8, 1990.
F039	Nonwastewater	May 8, 1992.
K001 (organics)[b]	All	Aug. 8, 1988.
K001	All others	Aug. 8, 1988.
K002	All	Aug. 8, 1990.
K003	All	Aug. 8, 1990.
K004	Wastewater	Aug. 8, 1990.
K004	Nonwastewater	Aug. 8, 1988.
K005	Wastewater	Aug. 8, 1990.
K005	Nonwastewater	June 8, 1989.
K006	All	Aug. 8, 1990.
K007	Wastewater	Aug. 8, 1990.
K007	Nonwastewater	June 8, 1989.
K008	Wastewater	Aug. 8, 1990.
K008	Nonwastewater	Aug. 8, 1988.
K009	All	June 8, 1989.
K010	All	June 8, 1989.
K011	Wastewater	Aug. 8, 1990.
K011	Nonwastewater	June 8, 1989.

K013	Wastewater	Aug. 8, 1990.
K013	Nonwastewater	June 8, 1989.
K014	Wastewater	Aug. 8, 1990.
K014	Nonwastewater	June 8, 1989.
K015	Wastewater	Aug. 8, 1990.
K015	Nonwastewater	Aug. 8, 1990.
K016	All	Aug. 8, 1988.
K017	All	Aug. 8, 1990.
K018	All	Aug. 8, 1988.
K019	All	Aug. 8, 1988.
K020	All	Aug. 8, 1988.
K021	Wastewater	Aug. 8, 1990.
K021	Nonwastewater	Aug. 8, 1988.
K022	Wastewater	Aug. 8, 1990.
K022	Nonwastewater	Aug. 8, 1988.
K023	All	June 8, 1989.
K024	All	Aug. 8, 1988.
K025	Wastewater	Aug. 8, 1990.
K025	Nonwastewater	Aug. 8, 1988.
K026	All	Aug. 8, 1990.
K027	All	June 8, 1989.
K028 (metals)	Nonwastewater	Aug. 8, 1990.
K028	All others	June 8, 1989.
K029	Wastewater	Aug. 8, 1990.
K029	Nonwastewater	June 8, 1989.
K030	All	Aug. 8, 1988.
K031	Wastewater	Aug. 8, 1990.
K031	Nonwastewater	May 8, 1992.
K032	All	Aug. 8, 1990.
K033	All	Aug. 8, 1990.
K034	All	Aug. 8, 1990.
K035	All	Aug. 8, 1990.
K036	Wastewater	Aug. 8, 1990.
K036	Nonwastewater	Aug. 8, 1988.
K037[b]	Wastewater	Aug. 8, 1988.
K037	Nonwastewater	Aug. 8, 1988.
K038	All	June 8, 1989.
K039	All	June 8, 1989.
K040	All	June 8, 1989.
K041	All	Aug. 8, 1990.
K042	All	Aug. 8, 1990.
K043	All	June 8, 1989.

K044	All	Aug. 8, 1988.
K045	All	Aug. 8, 1988.
K046 (Nonreactive)	Nonwastewater	Aug. 8, 1988.
K046	All others	Aug. 8, 1990.
K047	All	Aug. 8, 1988.
K048	Wastewater	Aug. 8, 1990.
K048	Nonwastewater	Nov. 8, 1990.
K049	Wastewater	Aug. 8, 1990.
K049	Nonwastewater	Nov. 8, 1990.
K050	Wastewater	Aug. 8, 1990.
K050	Nonwastewater	Nov. 8, 1990.
K051	Wastewater	Aug. 8, 1990.
K051	Nonwastewater	Nov. 8, 1990.
K052	Wastewater	Aug. 8, 1990.
K052	Nonwastewater	Nov. 8, 1990.
K060	Wastewater	Aug. 8, 1990.
K060	Nonwastewater	Aug. 8, 1988.
K061	Wastewater	Aug. 8, 1990.
K061	Nonwastewater	June 30, 1992.
K062	All	Aug. 8, 1988.
K069 (Non-Calcium Sulfate)	Nonwastewater	Aug. 8, 1988.
K069	All others	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K073	All	Aug. 8, 1990.
K083	All	Aug. 8, 1990.
K084	Wastewater	Aug. 8, 1990.
K084	Nonwastewater	May 8, 1992.
K085	All	Aug. 8, 1990.
K086 (organics)[b]	All	Aug. 8, 1988.
K086	All others	Aug. 8, 1988.
K087	All	Aug. 8, 1988.
K088	All others	Oct. 8, 1997.
K088	All others	Jan. 8, 1997.
K093	All	June 8, 1989.
K094	All	June 8, 1989.
K095	Wastewater	Aug. 8, 1990.
K095	Nonwastewater	June 8, 1989.
K096	Wastewater	Aug. 8, 1990.
K096	Nonwastewater	June 8, 1989.
K097	All	Aug. 8, 1990.
K098	All	Aug. 8, 1990.
K099	All	Aug. 8,

1988.
K100 Wastewater Aug. 8, 1990.
K100 Nonwastewater Aug. 8, 1988.
K101 (organics) Wastewater Aug. 8, 1988.
K101 (metals) Wastewater Aug. 8, 1990.
K101 (organics) Nonwastewater Aug. 8, 1988.
K101 (metals) Nonwastewater May 8, 1992.
K102 (organics) Wastewater Aug. 8, 1988.
K102 (metals) Wastewater Aug. 8, 1990.
K102 (organics) Nonwastewater Aug. 8, 1988.
K102 (metals) Nonwastewater May 8, 1992.
K103 All Aug. 8, 1988.
K104 All Aug. 8, 1988.
K105 All Aug. 8, 1990.
K106 Wastewater Aug. 8, 1990.
K106 Nonwastewater May 8, 1992.
K107 Mixed with radioactive wastes June 30, 1994.
K107 All others Nov. 9, 1992.
K108 Mixed with radioactive wastes June 30, 1994.
K108 All others Nov. 9, 1992.
K109 Mixed with radioactive wastes June 30, 1994.
K109 All others Nov. 9, 1992.
K110 Mixed with radioactive wastes June 30, 1994.
K110 All others Nov. 9, 1992.
K111 Mixed with radioactive wastes June 30, 1994.
K111 All others Nov. 9, 1992.
K112 Mixed with radioactive wastes June 30, 1994.
K112 All others Nov. 9, 1992.
K113 All June 8, 1989.
K114 All June 8, 1989.
K115 All June 8, 1989.
K116 All June 8, 1989.
K117 Mixed with radioactive wastes June 30, 1994.
K117 All others Nov. 9, 1992.
K118 Mixed with radioactive wastes June 30, 1994.
K118 All others Nov. 9, 1992.
K123 Mixed with radioactive wastes June 30, 1994.
K123 All others Nov. 9, 1992.
K124 Mixed with radioactive wastes June 30, 1994.
K124 All others Nov. 9, 1992.
K125 Mixed with radioactive wastes June 30, 1994.
K125 All others Nov. 9, 1992.
K126 Mixed with radioactive wastes June 30,

		1994.
K126	All others	Nov. 9, 1992.
K131	Mixed with radioactive wastes	June 30, 1994.
K131	All others	Nov. 9, 1992.
K132	Mixed with radioactive wastes	June 30, 1994.
K132	All others	Nov. 9, 1992.
K136	Mixed with radioactive wastes	June 30, 1994.
K136	All others	Nov. 9, 1992.
K141	Mixed with radioactive wastes	Sep. 19, 1996.
K141	All others	Dec. 19, 1994.
K142	Mixed with radioactive wastes	Sep. 19, 1996.
K142	All others	Dec. 19, 1994.
K143	Mixed with radioactive wastes	Sep. 19, 1996.
K143	All others	Dec. 19, 1994.
K144	Mixed with radioactive wastes	Sep. 19, 1996.
K144	All others	Dec. 19, 1994.
K145	Mixed with radioactive wastes	Sep. 19, 1996.
K145	All others	Dec. 19, 1994.
K147	Mixed with radioactive wastes	Sep. 19, 1996.
K147	All others	Dec. 19, 1994.
K148	Mixed with radioactive wastes	Sep. 19, 1996.
K148	All others	Dec. 19, 1994.
K149	Mixed with radioactive wastes	Sep. 19, 1996.
K149	All others	Dec. 19, 1994.
K150	Mixed with radioactive wastes	Sep. 19, 1996.
K150	All others	Dec. 19, 1994.
K151	Mixed with radioactive wastes	Sep. 19, 1996.
K151	All others	Dec. 19, 1994.
K156	Mixed with radioactive wastes	Apr. 8, 1998.
K156	All others	July 8, 1996.
K157	Mixed with radioactive wastes	Apr. 8, 1998.
K157	All others	July 8, 1996.
K158	Mixed with radioactive wastes	Apr. 8, 1998.
K158	All others	July 8, 1996.
K159	Mixed with radioactive wastes	Apr. 8, 1998.
K159	All others	July 8, 1996.
K160	Mixed with radioactive wastes	Apr. 8, 1998.
K160	All others	July 8, 1996.
K161	Mixed with radioactive wastes	Apr. 8, 1998.
K161	All others	July 8, 1996.
P001	All	Aug. 8, 1990.
P002	All	Aug. 8, 1990.
P003	All	Aug. 8,

		1990.
P004	All	Aug. 8, 1990.
P005	All	Aug. 8, 1990.
P006	All	Aug. 8, 1990.
P007	All	Aug. 8, 1990.
P008	All	Aug. 8, 1990.
P009	All	Aug. 8, 1990.
P010	Wastewater	Aug. 8, 1990.
P010	Nonwastewater	May 8, 1992.
P011	Wastewater	Aug. 8, 1990.
P011	Nonwastewater	May 8, 1992.
P012	Wastewater	Aug. 8, 1990.
P012	Nonwastewater	May 8, 1992.
P013 (barium)	Nonwastewater	Aug. 8, 1990.
P013	All others	June 8, 1989.
P014	All	Aug. 8, 1990.
P015	All	Aug. 8, 1990.
P016	All	Aug. 8, 1990.
P017	All	Aug. 8, 1990.
P018	All	Aug. 8, 1990.
P020	All	Aug. 8, 1990.
P021	All	June 8, 1989.
P022	All	Aug. 8, 1990.
P023	All	Aug. 8, 1990.
P024	All	Aug. 8, 1990.
P026	All	Aug. 8, 1990.
P027	All	Aug. 8, 1990.
P028	All	Aug. 8, 1990.
P029	All	June 8, 1989.
P030	All	June 8, 1989.
P031	All	Aug. 8, 1990.
P033	All	Aug. 8, 1990.
P034	All	Aug. 8, 1990.
P036	Wastewater	Aug. 8, 1990.
P036	Nonwastewater	May 8, 1992.
P037	All	Aug. 8, 1990.
P038	Wastewater	Aug. 8, 1990.
P038	Nonwastewater	May 8, 1992.
P039	All	June 8, 1989.
P040	All	June 8, 1989.
P041	All	June 8, 1989.
P042	All	Aug. 8, 1990.
P043	All	June 8,

		1989.
P044	All	June 8, 1989.
P045	All	Aug. 8, 1990.
P046	All	Aug. 8, 1990.
P047	All	Aug. 8, 1990.
P048	All	Aug. 8, 1990.
P049	All	Aug. 8, 1990.
P050	All	Aug. 8, 1990.
P051	All	Aug. 8, 1990.
P054	All	Aug. 8, 1990.
P056	All	Aug. 8, 1990.
P057	All	Aug. 8, 1990.
P058	All	Aug. 8, 1990.
P059	All	Aug. 8, 1990.
P060	All	Aug. 8, 1990.
P062	All	June 8, 1989.
P063	All	June 8, 1989.
P064	All	Aug. 8, 1990.
P065	Wastewater	Aug. 8, 1990.
P065	Nonwastewater	May 8, 1992.
P066	All	Aug. 8, 1990.
P067	All	Aug. 8, 1990.
P068	All	Aug. 8, 1990.
P069	All	Aug. 8, 1990.
P070	All	Aug. 8, 1990.
P071	All	June 8, 1989.
P072	All	Aug. 8, 1990.
P073	All	Aug. 8, 1990.
P074	All	June 8, 1989.
P075	All	Aug. 8, 1990.
P076	All	Aug. 8, 1990.
P077	All	Aug. 8, 1990.
P078	All	Aug. 8, 1990.
P081	All	Aug. 8, 1990.
P082	All	Aug. 8, 1990.
P084	All	Aug. 8, 1990.
P085	All	June 8, 1989.
P087	All	May 8, 1992.
P088	All	Aug. 8, 1990.
P089	All	June 8, 1989.
P092	Wastewater	Aug. 8, 1990.
P092	Nonwastewater	May 8, 1992.
P093	All	Aug. 8,

		1990.
P094	All	June 8, 1989.
P095	All	Aug. 8, 1990.
P096	All	Aug. 8, 1990.
P097	All	June 8, 1989.
P098	All	June 8, 1989.
P099 (silver)	Wastewater	Aug. 8, 1990.
P099	All others	June 8, 1989.
P101	All	Aug. 8, 1990.
P102	All	Aug. 8, 1990.
P103	All	Aug. 8, 1990.
P104 (silver)	Wastewater	Aug. 8, 1990.
P104	All others	June 8, 1989.
P105	All	Aug. 8, 1990.
P106	All	June 8, 1989.
P108	All	Aug. 8, 1990.
P109	All	June 8, 1989.
P110	All	Aug. 8, 1990.
P111	All	June 8, 1989.
P112	All	Aug. 8, 1990.
P113	All	Aug. 8, 1990.
P114	All	Aug. 8, 1990.
P115	All	Aug. 8, 1990.
P116	All	Aug. 8, 1990.
P118	All	Aug. 8, 1990.
P119	All	Aug. 8, 1990.
P120	All	Aug. 8, 1990.
P121	All	June 8, 1989.
P122	All	Aug. 8, 1990.
P123	All	Aug. 8, 1990.
P127	Mixed with radioactive wastes	Apr. 8, 1998.
P127	All others	July 8, 1996.
P128	Mixed with radioactive wastes	Apr. 8, 1998.
P128	All others	July 8, 1996.
P185	Mixed with radioactive wastes	Apr. 8, 1998.
P185	All others	July 8, 1996.
P188	Mixed with radioactive wastes	Apr. 8, 1998.
P188	All others	July 8, 1996.
P189	Mixed with radioactive wastes	Apr. 8, 1998.
P189	All others	July 8, 1996.
P190	Mixed with radioactive wastes	Apr. 8, 1998.
P190	All others	July 8, 1996.
P191	Mixed with radioactive wastes	Apr. 8,

		1998.
P191	All others	July 8, 1996.
P192	Mixed with radioactive wastes	Apr. 8, 1998.
P192	All others	July 8, 1996.
P194	Mixed with radioactive wastes	Apr. 8, 1998.
P194	All others	July 8, 1996.
P196	Mixed with radioactive wastes	Apr. 8, 1998.
P196	All others	July 8, 1996.
P197	Mixed with radioactive wastes	Apr. 8, 1998.
P197	All others	July 8, 1996.
P198	Mixed with radioactive wastes	Apr. 8, 1998.
P198	All others	July 8, 1996.
P199	Mixed with radioactive wastes	Apr. 8, 1998.
P199	All others	July 8, 1996.
P201	Mixed with radioactive wastes	Apr. 8, 1998.
P201	All others	July 8, 1996.
P202	Mixed with radioactive wastes	Apr. 8, 1998.
P202	All others	July 8, 1996.
P203	Mixed with radioactive wastes	Apr. 8, 1998.
P203	All others	July 8, 1996.
P204	Mixed with radioactive wastes	Apr. 8, 1998.
P204	All others	July 8, 1996.
P205	Mixed with radioactive wastes	Apr. 8, 1998.
P205	All others	July 8, 1996.
U001	All	Aug. 8, 1990.
U002	All	Aug. 8, 1990.
U003	All	Aug. 8, 1990.
U004	All	Aug. 8, 1990.
U005	All	Aug. 8, 1990.
U006	All	Aug. 8, 1990.
U007	All	Aug. 8, 1990.
U008	All	Aug. 8, 1990.
U009	All	Aug. 8, 1990.
U010	All	Aug. 8, 1990.
U011	All	Aug. 8, 1990.
U012	All	Aug. 8, 1990.
U014	All	Aug. 8, 1990.
U015	All	Aug. 8, 1990.
U016	All	Aug. 8, 1990.
U017	All	Aug. 8, 1990.
U018	All	Aug. 8, 1990.
U019	All	Aug. 8, 1990.
U020	All	Aug. 8,

		1990.
U021	All	Aug. 8, 1990.
U022	All	Aug. 8, 1990.
U023	All	Aug. 8, 1990.
U024	All	Aug. 8, 1990.
U025	All	Aug. 8, 1990.
U026	All	Aug. 8, 1990.
U027	All	Aug. 8, 1990.
U028	All	June 8, 1989.
U029	All	Aug. 8, 1990.
U030	All	Aug. 8, 1990.
U031	All	Aug. 8, 1990.
U032	All	Aug. 8, 1990.
U033	All	Aug. 8, 1990.
U034	All	Aug. 8, 1990.
U035	All	Aug. 8, 1990.
U036	All	Aug. 8, 1990.
U037	All	Aug. 8, 1990.
U038	All	Aug. 8, 1990.
U039	All	Aug. 8, 1990.
U041	All	Aug. 8, 1990.
U042	All	Aug. 8, 1990.
U043	All	Aug. 8, 1990.
U044	All	Aug. 8, 1990.
U045	All	Aug. 8, 1990.
U046	All	Aug. 8, 1990.
U047	All	Aug. 8, 1990.
U048	All	Aug. 8, 1990.
U049	All	Aug. 8, 1990.
U050	All	Aug. 8, 1990.
U051	All	Aug. 8, 1990.
U052	All	Aug. 8, 1990.
U053	All	Aug. 8, 1990.
U055	All	Aug. 8, 1990.
U056	All	Aug. 8, 1990.
U057	All	Aug. 8, 1990.
U058	All	June 8, 1989.
U059	All	Aug. 8, 1990.
U060	All	Aug. 8, 1990.
U061	All	Aug. 8, 1990.
U062	All	Aug. 8, 1990.
U063	All	Aug. 8, 1990.
U064	All	Aug. 8,

		1990.
U066	All	Aug. 8, 1990.
U067	All	Aug. 8, 1990.
U068	All	Aug. 8, 1990.
U069	All	June 30, 1992.
U070	All	Aug. 8, 1990.
U071	All	Aug. 8, 1990.
U072	All	Aug. 8, 1990.
U073	All	Aug. 8, 1990.
U074	All	Aug. 8, 1990.
U075	All	Aug. 8, 1990.
U076	All	Aug. 8, 1990.
U077	All	Aug. 8, 1990.
U078	All	Aug. 8, 1990.
U079	All	Aug. 8, 1990.
U080	All	Aug. 8, 1990.
U081	All	Aug. 8, 1990.
U082	All	Aug. 8, 1990.
U083	All	Aug. 8, 1990.
U084	All	Aug. 8, 1990.
U085	All	Aug. 8, 1990.
U086	All	Aug. 8, 1990.
U087	All	June 8, 1989.
U088	All	June 8, 1989.
U089	All	Aug. 8, 1990.
U090	All	Aug. 8, 1990.
U091	All	Aug. 8, 1990.
U092	All	Aug. 8, 1990.
U093	All	Aug. 8, 1990.
U094	All	Aug. 8, 1990.
U095	All	Aug. 8, 1990.
U096	All	Aug. 8, 1990.
U097	All	Aug. 8, 1990.
U098	All	Aug. 8, 1990.
U099	All	Aug. 8, 1990.
U101	All	Aug. 8, 1990.
U102	All	June 8, 1989.
U103	All	Aug. 8, 1990.
U105	All	Aug. 8, 1990.
U106	All	Aug. 8, 1990.
U107	All	June 8, 1989.
U108	All	Aug. 8, 1990.
U109	All	Aug. 8,

		1990.
U110	All	Aug. 8, 1990.
U111	All	Aug. 8, 1990.
U112	All	Aug. 8, 1990.
U113	All	Aug. 8, 1990.
U114	All	Aug. 8, 1990.
U115	All	Aug. 8, 1990.
U116	All	Aug. 8, 1990.
U117	All	Aug. 8, 1990.
U118	All	Aug. 8, 1990.
U119	All	Aug. 8, 1990.
U120	All	Aug. 8, 1990.
U121	All	Aug. 8, 1990.
U122	All	Aug. 8, 1990.
U123	All	Aug. 8, 1990.
U124	All	Aug. 8, 1990.
U125	All	Aug. 8, 1990.
U126	All	Aug. 8, 1990.
U127	All	Aug. 8, 1990.
U128	All	Aug. 8, 1990.
U129	All	Aug. 8, 1990.
U130	All	Aug. 8, 1990.
U131	All	Aug. 8, 1990.
U132	All	Aug. 8, 1990.
U133	All	Aug. 8, 1990.
U134	All	Aug. 8, 1990.
U135	All	Aug. 8, 1990.
U136	Wastewater	Aug. 8, 1990.
U136	Nonwastewater	May 8, 1992.
U137	All	Aug. 8, 1990.
U138	All	Aug. 8, 1990.
U140	All	Aug. 8, 1990.
U141	All	Aug. 8, 1990.
U142	All	Aug. 8, 1990.
U143	All	Aug. 8, 1990.
U144	All	Aug. 8, 1990.
U145	All	Aug. 8, 1990.
U146	All	Aug. 8, 1990.
U147	All	Aug. 8, 1990.
U148	All	Aug. 8, 1990.
U149	All	Aug. 8, 1990.
U150	All	Aug. 8, 1990.
U151	Wastewater	Aug. 8,

		1990.
U151	Nonwastewater	May 8, 1992.
U152	All	Aug. 8, 1990.
U153	All	Aug. 8, 1990.
U154	All	Aug. 8, 1990.
U155	All	Aug. 8, 1990.
U156	All	Aug. 8, 1990.
U157	All	Aug. 8, 1990.
U158	All	Aug. 8, 1990.
U159	All	Aug. 8, 1990.
U160	All	Aug. 8, 1990.
U161	All	Aug. 8, 1990.
U162	All	Aug. 8, 1990.
U163	All	Aug. 8, 1990.
U164	All	Aug. 8, 1990.
U165	All	Aug. 8, 1990.
U166	All	Aug. 8, 1990.
U167	All	Aug. 8, 1990.
U168	All	Aug. 8, 1990.
U169	All	Aug. 8, 1990.
U170	All	Aug. 8, 1990.
U171	All	Aug. 8, 1990.
U172	All	Aug. 8, 1990.
U173	All	Aug. 8, 1990.
U174	All	Aug. 8, 1990.
U176	All	Aug. 8, 1990.
U177	All	Aug. 8, 1990.
U178	All	Aug. 8, 1990.
U179	All	Aug. 8, 1990.
U180	All	Aug. 8, 1990.
U181	All	Aug. 8, 1990.
U182	All	Aug. 8, 1990.
U183	All	Aug. 8, 1990.
U184	All	Aug. 8, 1990.
U185	All	Aug. 8, 1990.
U186	All	Aug. 8, 1990.
U187	All	Aug. 8, 1990.
U188	All	Aug. 8, 1990.
U189	All	Aug. 8, 1990.
U190	All	June 8, 1989.
U191	All	Aug. 8, 1990.
U192	All	Aug. 8, 1990.
U193	All	Aug. 8,

		1990.
U194	All	June 8, 1989.
U196	All	Aug. 8, 1990.
U197	All	Aug. 8, 1990.
U200	All	Aug. 8, 1990.
U201	All	Aug. 8, 1990.
U203	All	Aug. 8, 1990.
U204	All	Aug. 8, 1990.
U205	All	Aug. 8, 1990.
U206	All	Aug. 8, 1990.
U207	All	Aug. 8, 1990.
U208	All	Aug. 8, 1990.
U209	All	Aug. 8, 1990.
U210	All	Aug. 8, 1990.
U211	All	Aug. 8, 1990.
U213	All	Aug. 8, 1990.
U214	All	Aug. 8, 1990.
U215	All	Aug. 8, 1990.
U216	All	Aug. 8, 1990.
U217	All	Aug. 8, 1990.
U218	All	Aug. 8, 1990.
U219	All	Aug. 8, 1990.
U220	All	Aug. 8, 1990.
U221	All	June 8, 1989.
U222	All	Aug. 8, 1990.
U223	All	June 8, 1989.
U225	All	Aug. 8, 1990.
U226	All	Aug. 8, 1990.
U227	All	Aug. 8, 1990.
U228	All	Aug. 8, 1990.
U234	All	Aug. 8, 1990.
U235	All	June 8, 1989.
U236	All	Aug. 8, 1990.
U237	All	Aug. 8, 1990.
U238	All	Aug. 8, 1990.
U239	All	Aug. 8, 1990.
U240	All	Aug. 8, 1990.
U243	All	Aug. 8, 1990.
U244	All	Aug. 8, 1990.
U246	All	Aug. 8, 1990.
U247	All	Aug. 8, 1990.
U248	All	Aug. 8, 1990.
U249	All	Aug. 8,

		1990.
U271	Mixed with radioactive wastes	Apr. 8, 1998.
U271	All others	July 8, 1996.
U277	Mixed with radioactive wastes	Apr. 8, 1998.
U277	All others	July 8, 1996.
U278	Mixed with radioactive wastes	Apr. 8, 1998.
U278	All others	July 8, 1996.
U279	Mixed with radioactive wastes	Apr. 8, 1998.
U279	All others	July 8, 1996.
U280	Mixed with radioactive wastes	Apr. 8, 1998.
U280	All others	July 8, 1996.
U328	Mixed with radioactive wastes	June 30, 1994.
U328	All others	Nov. 9, 1992.
U353	Mixed with radioactive wastes	June 30, 1994.
U353	All others	Nov. 9, 1992.
U359	Mixed with radioactive wastes	June 30, 1994.
U359	All others	Nov. 9, 1992.
U364	Mixed with radioactive wastes	Apr. 8, 1998.
U364	All others	July 8, 1996.
U365	Mixed with radioactive wastes	Apr. 8, 1998.
U365	All others	July 8, 1996.
U366	Mixed with radioactive wastes	Apr. 8, 1998.
U366	All others	July 8, 1996.
U367	Mixed with radioactive wastes	Apr. 8, 1998.
U367	All others	July 8, 1996.
U372	Mixed with radioactive wastes	Apr. 8, 1998.
U372	All others	July 8, 1996.
U373	Mixed with radioactive wastes	Apr. 8, 1998.
U373	All others	July 8, 1996.
U375	Mixed with radioactive wastes	Apr. 8, 1998.
U375	All others	July 8, 1996.
U376	Mixed with radioactive wastes	Apr. 8, 1998.
U376	All others	July 8, 1996.
U377	Mixed with radioactive wastes	Apr. 8, 1998.
U377	All others	July 8, 1996.
U378	Mixed with radioactive wastes	Apr. 8, 1998.
U378	All others	July 8, 1996.
U379	Mixed with radioactive wastes	Apr. 8, 1998.
U379	All others	July 8, 1996.
U381	Mixed with radioactive wastes	Apr. 8, 1998.
U381	All others	July 8, 1996.
U382	Mixed with radioactive wastes	Apr. 8, 1998.
U382	All others	July 8,

		1996.	
U383	Mixed with radioactive wastes		Apr. 8,
		1998.	
U383	All others		July 8,
		1996.	
U384	Mixed with radioactive wastes		Apr. 8,
		1998.	
U384	All others		July 8,
		1996.	
U385	Mixed with radioactive wastes		Apr. 8,
		1998.	
U385	All others		July 8,
		1996.	
U386	Mixed with radioactive wastes		Apr. 8,
		1998.	
U386	All others		July 8,
		1996.	
U387	Mixed with radioactive wastes		Apr. 8,
		1998.	
U387	All others		July 8,
		1996.	
U389	Mixed with radioactive wastes		Apr. 8,
		1998.	
U389	All others		July 8,
		1996.	
U390	Mixed with radioactive wastes		Apr. 8,
		1998.	
U390	All others		July 8,
		1996.	
U391	Mixed with radioactive wastes		Apr. 8,
		1998.	
U391	All others		July 8,
		1996.	
U392	Mixed with radioactive wastes		Apr. 8,
		1998.	
U392	All others		July 8,
		1996.	
U393	Mixed with radioactive wastes		Apr. 8,
		1998.	
U393	All others		July 8,
		1996.	
U394	Mixed with radioactive wastes		Apr. 8,
		1998.	
U394	All others		July 8,
		1996.	
U395	Mixed with radioactive wastes		Apr. 8,
		1998.	
U395	All others		July 8,
		1996.	
U396	Mixed with radioactive wastes		Apr. 8,
		1998.	
U396	All others		July 8,
		1996.	
U400	Mixed with radioactive wastes		Apr. 8,
		1998.	
U400	All others		July 8,
		1996.	
U401	Mixed with radioactive wastes		Apr. 8,
		1998.	
U401	All others		July 8,
		1996.	
U402	Mixed with radioactive wastes		Apr. 8,
		1998.	
U402	All others		July 8,
		1996.	
U403	Mixed with radioactive wastes		Apr. 8,
		1998.	
U403	All others		July 8,
		1996.	
U404	Mixed with radioactive wastes		Apr. 8,
		1998.	
U404	All others		July 8,
		1996.	
U407	Mixed with radioactive wastes		Apr. 8,
		1998.	
U407	All others		July 8,
		1996.	
U409	Mixed with radioactive wastes		Apr. 8,
		1998.	
U409	All others		July 8,
		1996.	
U410	Mixed with radioactive wastes		Apr. 8,
		1998.	
U410	All others		July 8,

		1996.
U411	Mixed with radioactive wastes	Apr. 8, 1998.
U411	All others	July 8, 1996.

[a]This table does not include mixed radioactive wastes, from the First, Second, and Third Third rules, which received national capacity variance until May 8, 1992. This table also does not include contaminated soil and debris wastes.
[b]The standard was revised in the Third Third Final Rule, 55 FR 22520, June 1, 1990.
[c]The standard was revised in the Third Third Emergency Rule, 58 FR 29860, May 24, 1993; the original effective date was August 8, 1990.
[d]The standard was revised in the Phase II Final Rule, 59 FR 47982, Sept. 19, 1994; the original effective date was August 8, 1990.
[e]The standards for selected reactive wastes was revised in the Phase III Final Rule, 61 FR 15566, Apr. 8, 1996; the original effective date was August 8, 1990.

Table 2

Summary of Effective Dates of
Land Disposal Restrictions for
Contaminated Soil and Debris (CSD)

Restricted hazardous waste in CSD	Effective date
1. Solvent-(F001-F005) and dioxin-(F020-F023 and F026-F028) containing soil and debris from CERCLA response or RCRA corrective actions	Nov. 8, 1990.
2. Soil and debris not from CERCLA response or RCRA corrective actions contaminated with less than 1% total solvents (F001-F005) or dioxins (F020-F023 and F026-F028)	Nov. 8, 1988.
3. All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration	Aug. 8, 1990.
4. All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration	June 8, 1991.
5. All soil and debris contaminated with Third Third wastes or, First or Second Third "soft hammer" wastes which had treatment standards promulgated in the Third Third rule, for which treatment standards are based on incineration, vitrification, or mercury retorting, acid leaching followed by chemical precipitation, or thermal recovery of metals; as well as all inorganic solids debris contaminated with D004-D011 wastes, and all soil and debris contaminated with mixed RCRA/radioactive wastes	May 8, 1992.
6. Soil and debris contaminated with D012-D043, K141-K145, and K147-151 wastes	Dec. 19, 1994.
7. Debris (only) contaminated with F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359	Dec. 19, 1994.
8. Soil and debris contaminated with K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372,U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes	July 8, 1996.
9. Soil and debris contaminated with K088 wastes	Oct. 8, 1997.
10. Soil and debris contaminated with radioactive wastes mixed with K088, K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes	April 8, 1998.
11. Soil and debris contaminated with F032,	May 12,

F034, and F035		1997.
12. Soil and debris contaminated with newly identified D004-D011 toxicity characteristic wastes and mineral processing wastes.		Aug. 24, 1998.
13. Soil and debris contaminated with mixed radioactive newly identified D004-D011 characteristic wastes and mineral processing wastes.		May 26, 2000.

Note: Appendix VII is provided for the convenience of the reader.

R315-268-55. Appendix VIII to Rule R315-268 - LDR Effective Dates of Injected Prohibited Hazardous Wastes.

Table

National Capacity LDR Variances for UIC Wastes[a]

Waste code	Waste category	Effective date
F001-F005	All spent F001-F005 solvent containing less than 1 percent total F001-F005 solvent constituents	Aug. 8, 1990.
D001 (except High TOC Ignitable Liquids Subcategory)[c]	All	Feb. 10, 1994.
D001 (High TOC Ignitable Characteristic Liquids Subcategory)	Nonwastewater	Sept.19, 1995.
D002[b]	All	May 8, 1992.
D002[c]	All	Feb. 10, 1994.
D003 (cyanides)	All	May 8, 1992.
D003 (sulfides)	All	May 8, 1992.
D003 (explosives, reactives)	All	May 8, 1992.
D007	All	May 8, 1992.
D009	Nonwastewater	May 8, 1992.
D012	All	Sept.19, 1995.
D013	All	Sept.19, 1995.
D014	All	Sept.19, 1995.
D015	All	Sept.19, 1995.
D016	All	Sept.19, 1995.
D017	All	Sept.19, 1995.
D018	All, including mixed with radioactive wastes	Apr. 8, 1998.
D019	All, including mixed with radioactive wastes	Apr. 8, 1998.
D020	All, including mixed with radioactive wastes	Apr. 8, 1998.
D021	All, including mixed with radioactive wastes	Apr. 8, 1998.
D022	All, including mixed with radioactive wastes	Apr. 8, 1998.
D023	All, including mixed radioactive wastes	Apr. 8, 1998.
D024	All, including mixed radioactive wastes	Apr. 8, 1998.
D025	All, including mixed radioactive wastes	Apr. 8, 1998.
D026	All, including mixed radioactive wastes	Apr. 8, 1998.
D027	All, including mixed radioactive	Apr. 8,

	wastes	1998.
D028	All, including mixed radioactive wastes	Apr. 8, 1998.
D029	All, including mixed radioactive wastes	Apr. 8, 1998.
D030	All, including mixed radioactive wastes	Apr. 8, 1998.
D031	All, including mixed radioactive wastes	Apr. 8, 1998.
D032	All, including mixed radioactive wastes	Apr. 8, 1998.
D033	All, including mixed radioactive wastes	Apr. 8, 1998.
D034	All, including mixed radioactive wastes	Apr. 8, 1998.
D035	All, including mixed radioactive wastes	Apr. 8, 1998.
D036	All, including mixed radioactive wastes	Apr. 8, 1998.
D037	All, including mixed radioactive wastes	Apr. 8, 1998.
D038	All, including mixed radioactive wastes	Apr. 8, 1998.
D039	All, including mixed radioactive wastes	Apr. 8, 1998.
D040	All, including mixed radioactive wastes	Apr. 8, 1998.
D041	All, including mixed radioactive wastes	Apr. 8, 1998.
D042	All, including mixed radioactive wastes	Apr. 8, 1998.
D043	All, including mixed radioactive wastes	Apr. 8, 1998.
F007	All	June 8, 1991.
F032	All, including mixed radioactive wastes	May 12, 1999.
F034	All, including mixed radioactive wastes	May 12, 1999.
F035	All, including mixed radioactive wastes	May 12, 1999.
F037	All	Nov. 8, 1992.
F038	All	Nov. 8, 1992.
F039	Wastewater	May 8, 1992.
K009	Wastewater	June 8, 1991.
K011	Nonwastewater	June 8, 1991.
K011	Wastewater	May 8, 1992.
K013	Nonwastewater	June 8, 1991.
K013	Wastewater	May 8, 1992.
K014	All	May 8, 1992.
K016 (dilute)	All	June 8, 1991.
K049	All	Aug. 8, 1990.
K050	All	Aug. 8, 1990.
K051	All	Aug. 8, 1990.
K052	All	Aug. 8, 1990.
K062	All	Aug. 8, 1990.
K071	All	Aug. 8, 1990.
K088	All	Jan. 8, 1997.
K104	All	Aug. 8, 1990.
K107	All	Nov. 8, 1992.
K108	All	Nov. 9, 1992.
K109	All	Nov. 9, 1992.
K110	All	Nov. 9,

		1992.
K111	All	Nov. 9, 1992.
K112	All	Nov. 9, 1992.
K117	All	June 30, 1995.
K118	All	June 30, 1995.
K123	All	Nov. 9, 1992.
K124	All	Nov. 9, 1992.
K125	All	Nov. 9, 1992.
K126	All	Nov. 9, 1992.
K131	All	June 30, 1995.
K132	All	June 30, 1995.
K136	All	Nov. 9, 1992.
K141	All	Dec. 19, 1994.
K142	All	Dec. 19, 1994.
K143	All	Dec. 19, 1994.
K144	All	Dec. 19, 1994.
K145	All	Dec. 19, 1994.
K147	All	Dec. 19, 1994.
K148	All	Dec. 19, 1994.
K149	All	Dec. 19, 1994.
K150	All	Dec. 19, 1994.
K151	All	Dec. 19, 1994.
K156	All	July 8, 1996.
K157	All	July 8, 1996.
K158	All	July 8, 1996.
K159	All	July 8, 1996.
K160	All	July 8, 1996.
K161	All	July 8, 1996.
NA	Newly identified mineral processing wastes from titanium dioxide production and mixed radioactive/ newly identified D004-D011 characteristic wastes and mineral processing wastes.	May 26, 2000.
P127	All	July 8, 1996.
P128	All	July 8, 1996.
P185	All	July 8, 1996.
P188	All	July 8, 1996.
P189	All	July 8, 1996.
P190	All	July 8, 1996.
P191	All	July 8, 1996.
P192	All	July 8, 1996.
P194	All	July 8, 1996.
P196	All	July 8, 1996.
P197	All	July 8, 1996.
P198	All	July 8,

		1996.
P199	All	July 8, 1996.
P201	All	July 8, 1996.
P202	All	July 8, 1996.
P203	All	July 8, 1996.
P204	All	July 8, 1996.
P205	All	July 8, 1996.
U271	All	July 8, 1996.
U277	All	July 8, 1996.
U278	All	July 8, 1996.
U279	All	July 8, 1996.
U280	All	July 8, 1996.
U328	All	Nov. 9, 1992.
U353	All	Nov. 9, 1992.
U359	All	Nov. 9, 1992.
U364	All	July 8, 1996.
U365	All	July 8, 1996.
U366	All	July 8, 1996.
U367	All	July 8, 1996.
U372	All	July 8, 1996.
U373	All	July 8, 1996.
U375	All	July 8, 1996.
U376	All	July 8, 1996.
U377	All	July 8, 1996.
U378	All	July 8, 1996.
U379	All	July 8, 1996.
U381	All	July 8, 1996.
U382	All	July 8, 1996.
U383	All	July 8, 1996.
U384	All	July 8, 1996.
U385	All	July 8, 1996.
U386	All	July 8, 1996.
U387	All	July 8, 1996.
U389	All	July 8, 1996.
U390	All	July 8, 1996.
U391	All	July 8, 1996.
U392	All	July 8, 1996.
U395	All	July 8, 1996.
U396	All	July 8, 1996.
U400	All	July 8, 1996.
U401	All	July 8, 1996.
U402	All	July 8, 1996.
U403	All	July 8,

		1996.
U404	All	July 8, 1996.
U407	All	July 8, 1996.
U409	All	July 8, 1996.
U410	All	July 8, 1996.
U411	All	July 8, 1996.

[a]Wastes that are deep well disposed on-site receive a six-month variance, with restrictions effective in November 1990.
[b]Deepwell injected D002 liquids with a pH less than 2 shall meet the California List treatment standards on August 8, 1990.
[c]Managed in systems defined in 40 CFR 144.6(e) and 144.6(e) as Class V injection wells, that do not engage in CWA-equivalent treatment before injection.
Note: This table is provided for the convenience of the reader.

R315-268-56. Appendix IX to Rule R315-268 - Extraction Procedure (EP) Toxicity Test Method and Structural Integrity Test (Method 1310B).

Note: The EP (Method 1310B) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in Section R315-260-11.

R315-268-57. Appendix XI to Rule R315-268-Metal Bearing Wastes Prohibited from Dilution in a Combustion Unit According to Subsection R315-268-3(c).

Metal Bearing Wastes Prohibited From Dilution in a Combustion Unit According to Subsection R315-268-3(c)[1]

Table

Waste code	Waste description
D004	Toxicity Characteristic for Arsenic.
D005	Toxicity Characteristic for Barium.
D006	Toxicity Characteristic for Cadmium.
D007	Toxicity Characteristic for Chromium.
D008	Toxicity Characteristic for Lead.
D009	Toxicity Characteristic for Mercury.
D010	Toxicity Characteristic for Selenium.
D011	Toxicity Characteristic for Silver.
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.
F007	Spent cyanide plating bath solutions from electroplating operations.
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.
F010	Quenching bath residues from oil baths from metal treating operations where cyanides are used in the process.
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum car washing when such phosphating is an exclusive conversion coating process.
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.
K003	Wastewater treatment sludge from the production of molybdate orange pigments.
K004	Wastewater treatment sludge from the production of zinc yellow pigments.
K005	Wastewater treatment sludge from the production of chrome green pigments.
K006	Wastewater treatment sludge from the production of

chrome oxide green pigments, anhydrous and hydrated.
K007 Wastewater treatment sludge from the production of iron blue pigments.
K008 Oven residue from the production of chrome oxide green pigments.
K061 Emission control dust/sludge from the primary production of steel in electric furnaces.
K069 Emission control dust/sludge from secondary lead smelting.
K071 Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used.
K100 Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.
K106 Sludges from the mercury cell processes for making chlorine.
P010 Arsenic acid $H_3 AsO_4$
P011 Arsenic oxide $As_2 O_5$
P012 Arsenic trioxide
P013 Barium cyanide
P015 Beryllium
P029 Copper cyanide Cu(CN)
P074 Nickel cyanide $Ni(CN)_2$
P087 Osmium tetroxide
P099 Potassium silver cyanide
P104 Silver cyanide
P113 Thallic oxide
P114 Thallium (I) selenite
P115 Thallium (I) sulfate
P119 Ammonium vanadate
P120 Vanadium oxide $V_2 O_5$
P121 Zinc cyanide.
U032 Calcium chromate.
U145 Lead phosphate.
U151 Mercury.
U204 Selenious acid.U205 Selenium disulfide.
U216 Thallium (I) chloride.
U217 Thallium (I) nitrate.
[1]A combustion unit is defined as any thermal technology subject to Sections R315-264-340 through 351; 40 CFR 265.340 through 352, which are adopted by reference; and/or Sections R315-266-100 through 112.

KEY: hazardous waste, land disposal restrictions
Date of Last Change: January 13, 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-270**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-270. Hazardous Waste Permit Program.	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments have been received since the last five-year review of this rule.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
Rule R315-270 requires that any person who owns, constructs, modifies, or operates any facility for the purpose of treating, storing, or disposing of hazardous waste must first apply for, and receive the Director's approval for, a hazardous waste permit for that facility. These standards are required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-270. Hazardous Waste Permit Program.

R315-270-1. Hazardous Waste Permit Program -- Purpose and Scope of This Rule.

(a) No person shall own, construct, modify, or operate any facility for treating, storing, or disposing of hazardous waste without first submitting, and receiving the approval of the director for, a hazardous waste permit for that facility. However, any person owning or operating a facility on or before November 19, 1980, who has given timely notification as required by Section 3010 of the Resource Conservation and Recovery Act (RCRA) of 1976, 42 U.S.C., Section 6921, et seq., and who has submitted a proposed hazardous waste permit as required by Section R315-270-1 and Section 19-6-108 for that facility, may continue to operate that facility without violating Section R315-270-1 until the permit is approved or disapproved pursuant to Section R315-270-1.

(b)(1) The director shall review each proposed hazardous waste permit application to determine whether the application will be in accord with Rules R315-260 through R315-266, R315-268, R315-270, and R315-273, and Section 19-6-108 and, on that basis, shall approve or disapprove the application within the applicable time period specified in Section 19-6-108. If, after the receipt of plans, specifications, or other information required under Rule R315-270 and Section 19-6-108 and within the applicable time period of Section 19-6-108, the director determines that the proposed construction, installation or establishment or any part of it will not be in accord with the requirements of Rule R315-270 or other applicable rules, the director shall issue an order prohibiting the construction, installation or establishment of the proposal in whole or in part. The date of submission shall be the date that the required information is provided to the director as required by Rule R315-270.

(2) Any permit application that does not meet the requirements of Rules R315-260 through R315-266, R315-268, R315-270, and R315-273 shall be disapproved within the applicable time period specified in Section 19-6-108. If within the applicable time period specified in Section 19-6-108 the director fails to approve or disapprove the permit application or to request the submission of any additional information or modification to the application, the application may not be considered approved but the applicant may petition the director for a decision or seek judicial relief requiring a decision of approval or disapproval.

(3) An application for approval of a hazardous waste permit consists of two parts, part A and part B. For an existing facility, the requirement is satisfied by submitting only part A of the application until the date the director sets for each individual facility for submitting part B of the application, which date shall be in no case less than six months after the director gives notice to a particular facility that it shall submit part B of the application.

(c) Scope of the hazardous waste permit requirement. Section 19-6-108 requires a permit for the "treatment," "storage," and "disposal" of any "hazardous waste" as identified or listed in Rule R315-261. The terms "treatment," "storage," "disposal," and "hazardous waste" are defined in Section R315-270-2. Owners and operators of hazardous waste management units shall have permits during the active life, including the closure period, of the unit. Owners and operators of surface impoundments, landfills, land treatment units, and waste pile units that received waste after July 26, 1982, or that certified closure, in accordance with Section R315-265-115, after January 26, 1983, shall have post-closure permits, unless they demonstrate closure by removal or decontamination as provided under Subsections R315-270-1(c)(5) and R315-270-1(c)(6), or get an enforceable document in lieu of a post-closure permit, as provided under Subsection R315-270-1(c)(7). If a post-closure permit is required, the permit shall address applicable Rule R315-264 groundwater monitoring, unsaturated zone monitoring, corrective action, and post-closure care requirements. The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to get a post-closure permit under Section R315-270-1.

(1) Specific inclusions. Owners and operators of certain facilities require hazardous waste permits as well as permits under other programs for certain aspects of the facility operation. Hazardous waste permits are required for the following:

(i) Injection wells that dispose of hazardous waste, and associated surface facilities that treat, store or dispose of hazardous waste. However, the owner and operator with a Utah or federal UIC permit, shall be considered to have a "permit by rule" for the injection well itself if they comply with the requirements of Subsection R315-270-60(b).

(ii) Treatment, storage, or disposal of hazardous waste at facilities requiring a National Pollutant Discharge Elimination System (NPDES) permit. However, the owner and operator of a publicly owned treatment works receiving hazardous waste shall be considered to have a "permit by rule" for that waste if they comply with the requirements of Subsection R315-270-60(c).

(2) Specific exclusions and exemptions. The following are not required to get a hazardous waste permit.

(i) A generator who accumulates hazardous waste on-site in compliance with the conditions for exemption provided in Sections R315-262-14, R315-262-15, R315-262-16, and R315-262-17.

(ii) A farmer who disposes of hazardous waste pesticides from their own use as provided in Section R315-262-70.

(iii) A person who owns or operates facilities solely for the treatment, storage or disposal of hazardous waste excluded from regulation under Rule R315-270 by Section R315-261-4 or Section R315-262-14, very small quantity generator exemption.

(iv) An owner or operator of totally enclosed treatment facilities as defined in Section R315-260-10.

(v) An owner and operator of one or more elementary neutralization units or wastewater treatment units as defined in Section R315-260-10.

(vi) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.

(vii) A person adding absorbent material to waste in a container, as defined in Section R315-260-10, and a person adding waste to absorbent material in a container, these actions shall occur waste is first placed in the container, and Subsection R315-264-17(b) and Sections R315-264-171 and R315-264-172 are complied with.

(viii) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, managing the wastes listed in Subsections R315-270-1(c)(2)(viii)(A) through R315-270-1(c)(2)(viii)(E). These handlers are subject to regulation under Rule R315-273 if handling the following universal wastes:

(A) batteries as described in Section R315-273-2;

(B) pesticides as described in Section R315-273-3;

(C) mercury-containing equipment as described in Section R315-273-4;

(D) lamps as described in Section R315-273-5; and

(E) aerosol cans as described in Section R315-273-6.

(ix) Reserved.

(3) Further exclusions.

(i) A person is not required to get a permit for treatment or containment activities taken during immediate response to any of the following situations:

(A) a discharge of a hazardous waste;

(B) an imminent and substantial threat of a discharge of hazardous waste; or

(C) a discharge of a material that, if discharged, becomes a hazardous waste.

(ii) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to the applicable requirements of Rule R315-270 for those activities.

(iii) In the case of emergency responses involving military munitions, the responding military emergency response specialist's organizational unit shall keep records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(4) Permits for less than an entire facility. The director may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to each of the units at the facility. The interim status of any unit that has not been issued or denied a permit is not affected by the issuance or denial of a permit to any other unit at the facility.

(5) Closure by removal. Owners or operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination under Rule R315-265 standards shall get a post-closure permit unless they can demonstrate to the director that the closure met the standards for closure by removal or decontamination in Section R315-264-228, Subsection R315-264-280(e), or Section R315-264-258, respectively. The demonstration may be made in the following ways.

(i) If the owner or operator has submitted a part B application for a post-closure permit, the owner or operator may request a determination, based on information contained in the application, that Rule R315-264 closure by removal standards were met. If the director believes that Rule R315-264 standards were met, the director shall notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in Subsection R315-270-1(c)(6).

(ii) If the owner or operator has not submitted a part B application for a post-closure permit, the owner or operator may petition the director for a determination that a post-closure permit is not required because the closure met the applicable Rule R315-264 closure standards.

(A) The petition shall include data demonstrating that closure by removal or decontamination standards of Rule R315-264 were met.

(B) The director shall approve or deny the petition according to the procedures outlined in Subsection R315-270-1(c)(6).

(6) Procedures for closure equivalency determination.

(i) If a facility owner or operator seeks an equivalency demonstration under Subsection R315-270-1(c)(5), the director shall provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner or operator within 30 days from the date of the notice. The director shall also, in response to a request or at the director's discretion, hold a public hearing when such a hearing might clarify one or more issues concerning the equivalence of the Rule R315-265 closure to a Rule R315-264 closure. The director shall give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given when that notice of the opportunity for the public to submit written comments is given, and the two notices may be combined.

(ii) The director shall determine whether the Rule R315-265 closure met the Rule R315-264 closure by removal or decontamination requirements within 90 days of its receipt. If the director finds that the closure did not meet the applicable Rule R315-264 standards, the director shall provide the owner or operator with a written statement of the reasons why the closure failed to meet Rule R315-264 standards. The owner or operator may submit additional information in support of an equivalency demonstration within 30 days after receiving the written statement. The director shall review any additional information submitted and make a final determination within 60 days.

(iii) If the director determines that the facility did not close in accordance with Rule R315-264 closure by removal standards, the facility is subject to post-closure permitting requirements.

(7) Enforceable documents for post-closure care. At the discretion of the director, an owner or operator may get, in lieu of a post-closure permit, an enforceable document imposing the requirements of Section R315-265-121. "Enforceable document" means an order, a permit, or other document issued by the director including a corrective action order issued by EPA under Section 3008(h), a CERCLA remedial action, or a closure or post-closure permit.

R315-270-2. Hazardous Waste Permit Program -- Definitions.

The following definitions apply to Rules R315-270 and 124. Terms not defined in Section R315-270-2 have the meaning given by Section R315-260-10 and Section 19-6-102.

(a) "Administrator" means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

(b) "Application" means the information required by the Director under Section R315-270-14 through 29.

(c) "Aquifer" means a geological formation, group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

(d) "Closure" means the act of securing a Hazardous Waste Management facility pursuant to the requirements of Rule R315-264.

(e) "Component" means any constituent part of a unit or any group of constituent parts of a unit which are assembled to perform a specific function, e.g., a pump seal, pump, kiln liner, kiln thermocouple.

(f) "Corrective Action Management Unit" or CAMU means an area within a facility that is designated by the Director under Sections R315-264-550 through 555 for the purpose of implementing corrective action requirements under Section R315-264-101 and RCRA section 3008(h). A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

(g) "CWA" means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 92-217 and Pub. L. 95-576; 33 U.S.C. 1251 et seq.

(h) "Director" means the Director of the Division of Waste Management and Radiation Control.

(i) "Disposal" has the meaning as found in Section 19-6-102.

(j) "Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on the land or water, and at which hazardous waste will remain after closure. The term disposal facility does not include a corrective action management unit into which remediation wastes are placed.

(k) "Draft permit" means a document prepared under Section R315-124-6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a permit. A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in Section R315-124-5, are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination, as discussed in Section R315-124-5 is not a "draft permit." A proposed permit is not a draft permit.

(l) "Elementary neutralization unit" means a device which:

(1) Is used for neutralizing wastes only because they exhibit the corrosivity characteristic defined in Section R315-261-22, or are listed in Sections R315-261-30 through 35 only for this reason; and

(2) Meets the definition of tank, tank system, container, transport vehicle, or vessel in Section R315-260-10.

(m) "Emergency permit" means a permit issued in accordance with Section R315-270-61.

(n) "Environmental Protection Agency (EPA)" means the United States Environmental Protection Agency.

(o) "EPA" means the United States Environmental Protection Agency.

(p) "Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980. A facility has commenced construction if:

(1) The owner or operator has obtained the Federal, State and local approvals or permits necessary to begin physical construction; and either

(2)(i) A continuous on-site, physical construction program has begun; or

(ii) The owner or operator has entered into contractual obligations which cannot be cancelled or modified without substantial loss-for physical construction of the facility to be completed within a reasonable time.

(q) "Facility mailing list" means the mailing list for a facility maintained by the Director in accordance with Subsection R315-124-10(c)(1)(ix).

(r) "Facility" or "activity" means any HWM facility or any other facility or activity, including land or appurtenances thereto, that is subject to regulation under Sections 19-6-101 through 125.

(s) "Federal, State and local approvals or permits necessary to begin physical construction" means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

(t) "Functionally equivalent component" means a component which performs the same function or measurement and which meets or exceeds the performance specifications of another component.

(u) "Generator" means any person, by site location, whose act, or process produces "hazardous waste" identified or listed in Rule R315-261.

(v) "Ground water" means water below the land surface in a zone of saturation.

(w) "Hazardous waste" means a hazardous waste as defined in Section 19-6-102 and further defined in Section R315-261-3.

(x) "Hazardous Waste Management facility" means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units, for example, one or more landfills, surface impoundments, or combinations of them.

(y) "HWM facility" means Hazardous Waste Management facility.

(z) "Injection well" means a well into which fluids are being injected.

(aa) "In operation" means a facility which is treating, storing, or disposing of hazardous waste.

(bb) "Major facility" means any facility or activity classified as such by the Regional Administrator in conjunction with the Director.

(cc) "Manifest' means the shipping document originated and signed by the generator which contains the information required by Sections R315-262-20 through 27.

(dd) "National Pollutant Discharge Elimination System" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the CWA. The term includes an approved program.

(ee) "NPDES" means National Pollutant Discharge Elimination System.

(ff) "New HWM facility" means a Hazardous Waste Management facility which began operation or for which construction commenced after November 19, 1980.

(gg) "Off-site" means any site which is not on-site.

(hh) "On-site" means on the same or geographically contiguous property which may be divided by public or private right(s)-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going

along, the right(s)-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which the person controls and to which the public does not have access, is also considered on-site property.

(ii) "Owner or operator" means the owner or operator of any facility or activity subject to regulation under Sections 19-6-101 through 125.

(jj) "Permit" means an operation plan under Section 19-6-108 to implement the requirements of Rules R315-270 and 124. Permit includes permit by rule, Section R315-270-60, and emergency permit, Section R315-270-61. Permit does not include interim status, Sections R315-270-70 through 73, or any permit which has not been the subject of final action by the Director, such as a draft permit or a proposed permit.

(kk) "Permit-by-rule" means a provision of these rules stating that a facility or activity is deemed to have a permit if it meets the requirements of the provision.

(ll) "Person" means person as defined in Subsection 19-1-103(4).

(mm) "Physical construction" means excavation, movement of earth, erection of forms or structures, or similar activity to prepare an HWM facility to accept hazardous waste.

(nn) "POTW" means publicly owned treatment works.

(oo) "Publicly owned treatment works" means any device or system used in the treatment, including recycling and reclamation, of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

(pp) "RCRA" means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976, Pub. L. 94-580, as amended by Pub. L. 95-609 and Pub. L. 96-482, 42 U.S.C. 6901 et seq.

(qq) "Regional Administrator" means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.

(rr) "Remedial Action Plan" (RAP) means a special form of permit that a facility owner or operator may obtain instead of a permit issued under Sections R315-270-3 through 66, to authorize the treatment, storage or disposal of hazardous remediation waste, as defined in Section R315-260-10, at a remediation waste management site.

(ss) "Schedule of compliance" means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements, for example, actions, operations, or milestone events, leading to compliance with Sections 19-6-101 through 125 and rules adopted thereunder.

(tt) "SDWA" means the Safe Drinking Water Act, Pub. L. 95-523, as amended by Pub. L. 95-1900; 42 U.S.C. 3001 et seq.

(uu) "Site" means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

(vv) "State" means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(ww) "Storage" means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

(xx) "Transfer facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

(yy) "Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

(zz) "Treatment" means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such wastes, or so as to recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

(aaa) "UIC" means the Underground Injection Control Program under part C of the Safe Drinking Water Act, including an approved program.

(bbb) "Underground injection" means a well injection.

(ccc) "Underground source of drinking water" means an aquifer or its portion:

(1)(i) Which supplies any public water system; or

(ii) Which contains a sufficient quantity of ground water to supply a public water system; and

(A) Currently supplies drinking water for human consumption; or

(B) Contains fewer than 10,000 mg/l total dissolved solids; and

(2) Which is not an exempted aquifer.

(ddd) "USDW" means underground source of drinking water.

(eee) "Wastewater treatment unit" means a device which:

(1) Is part of a wastewater treatment facility which is subject to regulation under Rule R317-1 through 15; and

(2) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in Section R315-261-3, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in Section R315-261-3, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in Section R315-261-3; and

(3) Meets the definition of tank or tank system in Section R315-260-10.

R315-270-4. Hazardous Waste Permit Program -- Effect of a Permit.

(a)(1) Compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Rules R315-260 through 266, 268, 270 and 124 except for those requirements not included in the permit which:

(i) Become effective by statute;

(ii) Are promulgated under Rule R315-268 restricting the placement of hazardous wastes in or on the land;

(iii) Are promulgated under Rule R315-264 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, CQA programs, monitoring, action leakage rates, and response action plans, and shall be implemented through the procedures of Section R315-270-42 Class 1 permit modifications; or

(iv) Are promulgated under 40 CFR 265.1030 through 1035, 1050 through 1064, or 1080 through 1090, which are adopted by reference limiting air emissions.

(2) A permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Sections R315-270-41 and 43, or the permit may be modified upon the request of the permittee as set forth in Section R315-270-42.

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

R315-270-10. Hazardous Waste Permit Program -- General Application Requirements.

(a) Applying for a permit. Below is information on how to obtain a permit and where to find requirements for specific permits:

(1) If you are covered by permits by rule, Section R315-270-60, you need not apply.

(2) If you currently have interim status, you shall apply for permits when required by the Director.

(3) If you are required to have a permit, including new applicants and permittees with expiring permits, you shall complete, sign, and submit an application to the Director, as described in Section R315-270-10 and Sections R315-270-70 through 73.

(4) If you are seeking an emergency permit, the procedures for application, issuance, and administration are found exclusively in Section R315-270-61.

(5) If you are seeking a research, development, and demonstration permit, the procedures for application, issuance, and administration are found exclusively in Section R315-270-65.

(b) Who applies? When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit, except that the owner shall also sign the permit application.

(c) Completeness.

(1) The Director shall not issue a permit before receiving a complete application for a permit except for permits by rule, or emergency permits. An application for a permit is complete when the Director receives an application form and any supplemental information which are completed to the Director's satisfaction. An application for a permit is complete notwithstanding the failure of the owner or operator to submit the exposure information described in Subsection R315-270-10(j). The Director may deny a permit for the active life of a hazardous waste management facility or unit before receiving a complete application for a permit.

(2) The Director shall review for completeness every permit application. Each permit application submitted by a new hazardous waste management facility, should be reviewed for completeness by the Director in accordance with the applicable review periods of 19-6-108. Upon completing the review, the Director shall notify the applicant in writing whether the permit application is complete. If the permit application is incomplete, the Director shall list the information necessary to make the permit application complete. When the permit application is for an existing hazardous waste management facility, the Director shall specify in the notice of deficiency a date for submitting the necessary information. The Director shall review information submitted in response to a notice of deficiency within 30 days after receipt. The Director shall notify the applicant that the permit application is complete upon receiving this information. After the permit application is complete, the Director may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material.

(3) If an applicant fails or refuses to correct deficiencies in the permit application, the permit application may be denied and appropriate enforcement actions may be taken under the applicable provisions of the Utah Solid and Hazardous Waste Act.

(d) Information requirements. All applicants for permits shall provide information set forth in Section R315-270-13 and applicable sections in Sections R315-270-14 through 29 to the Director, using the application form provided by the Director, if the Director has made such forms available.

(e) Existing HWM facilities and interim status qualifications.

(1) Owners and operators of existing hazardous waste management facilities or of hazardous waste management facilities in existence on the effective date of statutory or regulatory amendments under Sections 19-6-101 through 125 that render the facility subject to the requirement to have a permit shall submit part A of their permit application no later than:

(i) Six months after the date of publication of regulations which first require them to comply with the standards set forth in Rules R315-265 or 266, or

(ii) Thirty days after the date they first become subject to the standards set forth in Rules R315-265 or 266, whichever first occurs.

(iii) For generators generating greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and treats, stores, or disposes of these wastes on-site, by March 24, 1987.

(2) Reserved

(3) The Director may by compliance order extend the date by which the owner and operator of an existing hazardous waste management facility shall submit part A of their permit application.

(4) The owner or operator of an existing hazardous waste management facility may be required to submit part B of their permit application. The Director may require submission of part B. Any owner or operator shall be allowed at least six months from the date of request to submit part B of the application. Any owner or operator of an existing hazardous waste management facility may voluntarily submit part B of the application at any time. Notwithstanding the above, any owner or operator of an existing hazardous waste management facility shall submit a part B permit application in accordance with the dates specified in Section R315-270-73. Any owner or

operator of a land disposal facility in existence on the effective date of statutory or regulatory amendments under Sections 19-6-101 through 125 that render the facility subject to the requirement to have a permit shall submit a part B application in accordance with the dates specified in Section R315-270-73.

(5) Failure to furnish a requested part B application on time, or to furnish in full the information required by the part B application, is grounds for termination of interim status under Rule R315-124.

(f) New HWM facilities.

(1) Except as provided in Subsection R315-270-10(f)(3), no person shall begin physical construction of a new HWM facility without having submitted parts A and B of the permit application and having received a finally effective permit.

(2) An application for a permit for a new hazardous waste management facility, including both Parts A and B, may be filed any time after promulgation of those standards in Sections R315-264-170 through 1202 applicable to such facility. The application shall be filed with the Director. Except as provided in Subsection R315-270-10(f)(3), all applications shall be submitted at least 180 days before physical construction is expected to commence.

(3) Notwithstanding Subsection R315-270-10(f)(1), the owner or operator of a facility approved for the incineration of polychlorinated biphenyls may, at any time after construction or operation of such facility has begun, file an application for a permit to incinerate hazardous waste authorizing such facility to incinerate waste identified or listed under Rule R315-261.

(g) Updating permit applications.

(1) If any owner or operator of a hazardous waste management facility has filed Part A of a permit application and has not yet filed part B, the owner or operator shall file an amended part A application:

(i) With the Director, within six months after the promulgation of revised regulations under Rule R315-261 listing or identifying additional hazardous wastes, if the facility is treating, storing or disposing of any of those newly listed or identified wastes.

(ii) With the Director no later than the effective date of regulatory provisions listing or designating wastes as hazardous in addition to those listed or designated previously, if the facility is treating storing or disposing of any of those newly listed or designated wastes; or

(iii) As necessary to comply with provisions of Section R315-270-72 for changes during interim status. Revised Part A applications necessary to comply with the provisions of Section R315-270-72 shall be filed with the Director.

(2) The owner or operator of a facility who fails to comply with the updating requirements of Subsection R315-270-10(g)(1) does not receive interim status as to the wastes not covered by duly filed part A applications.

(h) Reapplying for a permit. Owners and operators that have an effective permit and want to reapply for a new one, shall:

(1) Submit a new application at least 180 days before the expiration date of the effective permit, unless the Director allows a later date;

(2) The Director may not allow submittal of applications or Notices of Intent later than the expiration date of the existing permit, except as allowed by Subsection R315-270-51(e)(2).

(i) Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under Subsection R315-270-10(d) and Sections R315-270-13 through 21 for a period of at least 3 years from the date the application is signed.

(j) Exposure information.

(1) Any part B permit application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill shall be accompanied by information, reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information shall address:

(i) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(ii) The potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under Subsection R315-270-10(j)(1)(i); and

(iii) The potential magnitude and nature of the human exposure resulting from such releases.

(2) Owners and operators of a landfill or a surface impoundment who have already submitted a part B application shall submit the exposure information required in Subsection R315-270-10(j)(1).

(k) The Director may require a permittee or an applicant to submit information in order to establish permit conditions under Sections R315-270-32(b)(2) and 50(d).

(l) If the Director concludes, based on one or more of the factors listed in Subsection R315-270-10(l)(1) that compliance with the standards of Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE alone may not be protective of human health or the environment, the Director shall require the additional information or assessment(s) necessary to determine whether additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health and/or the environment resulting from both direct and indirect exposure pathways. The Director may also require a permittee or applicant to provide information necessary to determine whether such an assessment(s) should be required.

(1) The Director shall base the evaluation of whether compliance with the standards of Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE alone is protective of human health or the environment on factors relevant to the potential risk from a hazardous waste combustion unit, including, as appropriate, any of the following factors:

(i) Particular site-specific considerations such as proximity to receptors, such as schools, hospitals, nursing homes, day care centers, parks, community activity centers, or other potentially sensitive receptors, unique dispersion patterns, etc.;

(ii) Identities and quantities of emissions of persistent, bioaccumulative or toxic pollutants considering enforceable controls in place to limit those pollutants;

(iii) Identities and quantities of nondioxin products of incomplete combustion most likely to be emitted and to pose significant risk based on known toxicities, confirmation of which should be made through emissions testing;

(iv) Identities and quantities of other off-site sources of pollutants in proximity of the facility that significantly influence interpretation of a facility-specific risk assessment;

(v) Presence of significant ecological considerations, such as the proximity of a particularly sensitive ecological area;

(vi) Volume and types of wastes, for example wastes containing highly toxic constituents;

(vii) Other on-site sources of hazardous air pollutants that significantly influence interpretation of the risk posed by the operation of the source in question;

(viii) Adequacy of any previously conducted risk assessment, given any subsequent changes in conditions likely to affect risk; and

(ix) Such other factors as may be appropriate.

R315-270-11. Hazardous Waste Permit Program -- Signatories to Permit Applications and Reports.

(a) Applications. All permit applications shall be signed as follows:

(1) For a corporation: By a principal executive officer of at least the level of vice-president;

(2) For a partnership or sole proprietorship; by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official.

(b) Reports. All reports required by permits and other information requested by the Director shall be signed by a person described in Subsection R315-270-11(a), or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in Subsection R315-270-11(a);

(2) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. A duly authorized representative may thus be either a named individual or any individual occupying a named position; and

(3) The written authorization is submitted to the Director.

(c) Changes to authorization. If an authorization under Subsection R315-270-11(b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Subsection R315-270-11(b) shall be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d)(1) Any person signing a document under Subsection R315-270-11(a) or (b) shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(2) For remedial action plans (RAPs) under Sections R315-270-79 through 230, if the operator certifies according to Subsection R315-270-11(d)(1), then the owner may choose to make the following certification instead of the certification in Subsection R315-270-11(d)(1):

Based on my knowledge of the conditions of the property described in the RAP and my inquiry of the person or persons who manage the system referenced in the operator's certification, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

R315-270-12. Hazardous Waste Permit Program -- Confidentiality of Information.

(a) Any information provided to The Director under Rule R315-270 shall be made available to the public to the extent and in the manner authorized by Sections 63G-2-101 through 901.

(b) Any person who submits information to the Director in accordance with RuleR315-270 may assert a claim of business confidentiality covering part or all of that information by following the procedures set forth in Section 63G-2-309. Information covered by such a claim shall be disclosed by the Director only to the extent, and by means of the procedures, set forth Sections 63G-2-101 through 901. However, if no claim under Sections 63G-2-101 through 804 accompanies the information when it is received by the Director, it may be made available to the public without further notice to the person submitting it.

(c) Claims of confidentiality for the name and address of any permit applicant or permittee shall be denied.

R315-270-13. Hazardous Waste Permit Program -- Contents of Part A of the Permit Application.

Part A of the permit application shall be submitted to the Director and include the following information:

(a) The activities conducted by the applicant which require it to obtain a permit under Section 19-6-108.

(b) Name, mailing address, and location, including latitude and longitude of the facility for which the application is submitted.

(c) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(d) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(e) The name, address, and phone number of the owner of the facility.

(f) Whether the facility is located on Indian lands.

(g) An indication of whether the facility is new or existing and whether it is a first or revised application.

(h) For existing facilities,

(1) a scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas; and

(2) photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas.

(i) A description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items.

(j) A specification of the hazardous wastes listed or designated under Rule R315-261 to be treated, stored, or disposed of at the facility, an estimate of the quantity of such wastes to be treated, stored, or disposed annually, and a general description of the processes to be used for such wastes.

(k) A listing of all permits or construction approvals received or applied for under any of the following programs:

(1) Hazardous Waste Management program under Sections 19-6-101 through 125 or under RCRA.

(2) UIC program under the SWDA.

(3) NPDES program under the CWA.

(4) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(5) Nonattainment program under the Clean Air Act.

(6) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.

(7) Reserved

(8) Dredge or fill permits under section 404 of the CWA.

(9) Other relevant environmental permits, including State permits.

(l) A topographic map, or other map if a topographic map is unavailable, extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within 1/4 mile of the facility property boundary.

(m) A brief description of the nature of the business.

(n) For hazardous debris, a description of the debris category(ies) and contaminant category(ies) to be treated, stored, or disposed of at the facility.

R315-270-14. Hazardous Waste Permit Program -- Contents of Part B: General Requirements.

(a) Part B of the permit application consists of the general information requirements of Section R315-270-14, and the specific information requirements in Section R315-270-14 through 29 applicable to the facility. The part B information requirements presented in Sections R315-270-14 through 29 reflect the standards promulgated in Rule R315-264. These information requirements are necessary in order for the Director to determine compliance with the Rule R315-264 standards. If owners and operators of hazardous waste management facilities can demonstrate that the information prescribed in part B cannot be provided to the extent required, the Director may make allowance for submission of such information on a case-by-case basis. Information required in part B shall be submitted to the Director and signed in accordance with the requirements in Section R315-270-11. Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by a qualified Professional Engineer. For post-closure permits, only the information specified in Section R315-270-28 is required in part B of the permit application.

(b) General information requirements. The following information is required for all hazardous waste management facilities, except as Section R315-264-1 provides otherwise:

(1) A general description of the facility.

(2) Chemical and physical analyses of the hazardous waste and hazardous debris to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with Rule R315-264.

(3) A copy of the waste analysis plan required by Subsection R315-264-13(b) and, if applicable Subsection R315-264-13(c).

(4) A description of the security procedures and equipment required by Section R315-264-14, or a justification demonstrating the reasons for requesting a waiver of this requirement.

(5) A copy of the general inspection schedule required by Subsection R315-264-15(b). Include where applicable, as part of the inspection schedule, specific requirements in Section R315-264-174, Subsection R315-264-193(i), Sections R315-264-195, 226, 254, 273, 303, 602, 1033, 1052, 1053, 1058, 1084, 1085, 1086, and 1088.

(6) A justification of any request for a waiver(s) of the preparedness and prevention requirements of Sections R315-264-30 through 37.

(7) A copy of the contingency plan required by Section R315-264-50 through 56. Include, where applicable, as part of the contingency plan, specific requirements in Sections R315-264-227, 255, and 200.

(8) A description of procedures, structures, or equipment used at the facility to:

(i) Prevent hazards in unloading operations, for example, ramps, special forklifts;

(ii) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding, for example, berms, dikes, trenches;

(iii) Prevent contamination of water supplies;

(iv) Mitigate effects of equipment failure and power outages;

(v) Prevent undue exposure of personnel to hazardous waste, for example, protective clothing; and

(vi) Prevent releases to atmosphere.

(9) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required

to demonstrate compliance with Section R315-264-17 including documentation demonstrating compliance with Subsection R315-264-17(c).

(10) Traffic pattern, estimated volume, number, types of vehicles, and control, for example, show turns across traffic lanes, and stacking lanes, if appropriate; describe access road surfacing and load bearing capacity; show traffic control signals.

(11) Facility location information;

(i) In order to determine the applicability of the seismic standard, Subsection R315-264-18(a), the owner or operator of a new facility shall identify the political jurisdiction, e.g., county, township, or election district, in which the facility is proposed to be located. If the county or election district is not listed in appendix VI of Rule R315-264, no further information is required to demonstrate compliance with Subsection R315-264-18(a).

(ii) If the facility is proposed to be located in an area listed in appendix VI of Rule R315-264, the owner or operator shall demonstrate compliance with the seismic standard. This demonstration may be made using either published geologic data or data obtained from field investigations carried out by the applicant. The information provided shall be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The information submitted shall show that either:

(A) No faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault, which have displacement in Holocene time, within 3,000 feet of a facility are present, based on data from:

(1) Published geologic studies,

(2) Aerial reconnaissance of the area within a five-mile radius from the facility.

(3) An analysis of aerial photographs covering a 3,000 foot radius of the facility, and

(4) If needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility, or

(B) If faults, to include lineations, which have had displacement in Holocene time are present within 3,000 feet of a facility, no faults pass within 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted, based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility data shall be obtained from a subsurface exploration, trenching, of the area within a distance no less than 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults, which have had displacement in Holocene time, passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of faults found. The Guidance Manual for the Location Standards provides greater detail on the content of each type of seismic investigation and the appropriate conditions under which each approach or a combination of approaches would be used.

(iii) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification shall indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors, e.g., wave action, which shall be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood. Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration of the Federal Emergency Management Agency are available, they will normally be determinative of whether a facility is located within or outside of the 100-year floodplain. However, where the FIA map excludes an area, usually areas of the floodplain less than 200 feet in width, these areas shall be considered and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for a proposed facility location, the owner or operator shall use equivalent mapping techniques to determine whether the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.

(iv) Owners and operators of facilities located in the 100-year floodplain shall provide the following information:

(A) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as consequence of a 100-year flood.

(B) Structural or other engineering studies showing the design of operational units, e.g., tanks, incinerators, and flood protection devices, e.g., floodwalls, dikes, at the facility and how these will prevent washout.

(C) If applicable, and in lieu of Subsections R315-270-14(b)(11)(iv)(A) and (B), a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

(I) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility.

(II) A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the regulations under Rules R315-270, 124, and 264 through 266.

(III) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use.

(IV) The potential for accidental discharges of the waste during movement.

(v) Existing facilities NOT in compliance with Subsection R315-264-18(b) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(12) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the hazardous waste management facility in a safe manner as required to demonstrate compliance with Section R315-264-16. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in Subsection R315-264-16(a)(3).

(13) A copy of the closure plan and, where applicable, the post-closure plan required by Sections R315-264-112, 118, and 197. Include, where applicable, as part of the plans, specific requirements in Sections R315-264-178, 197, 228, 258, 280, 310, 351, 601, and

603.

(14) For hazardous waste disposal units that have been closed, documentation that notices required under Section R315-264-119 have been filed.

(15) The most recent closure cost estimate for the facility prepared in accordance with Section R315-264-142 and a copy of the documentation required to demonstrate financial assurance under Section R315-264-143. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the part B.

(16) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with Section R315-264-144 plus a copy of the documentation required to demonstrate financial assurance under Section R315-264-145. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the part B.

(17) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of Section R315-264-147. For a new facility, documentation showing the amount of insurance meeting the specification of Subsection R315-264-147(a) and, if applicable, Subsection R315-264-147(b), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in Subsection R315-264-147(c).

(18) Where appropriate, proof of coverage by a State financial mechanism in compliance with Section R315-264-149 or Section R315-264-150.

(19) A topographic map showing a distance of 1,000 feet around the facility at a scale of 2.5 centimeters, 1 inch, equal to not more than 61.0 meters, 200 feet. Contours shall be shown on the map. The contour interval shall be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters, 5 feet, if relief is greater than 6.1 meters, 20 feet, or an interval of 0.6 meters, 2 feet, if relief is less than 6.1 meters, 20 feet. Owners and operators of hazardous waste management facilities located in mountainous areas should use large contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

(i) Map scale and date.

(ii) 100-year floodplain area.

(iii) Surface waters including intermittent streams.

(iv) Surrounding land uses, residential, commercial, agricultural, recreational.

(v) A wind rose, i.e., prevailing wind-speed and direction.

(vi) Orientation of the map, north arrow.

(vii) Legal boundaries of the hazardous waste management facility site.

(viii) Access control, fences, gates.

(ix) Injection and withdrawal wells both on-site and off-site.

(x) Buildings; treatment, storage, or disposal operations; or other structure, recreation areas, runoff control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.

(xi) Barriers for drainage or flood control.

(xii) Location of operational units within the hazardous waste management facility site, where hazardous waste is, or will be, treated, stored, or disposed, include equipment cleanup areas. For large hazardous waste management facilities the Director may allow the use of other scales on a case-by-case basis.

(20) Applicants may be required to submit such information as may be necessary to enable the Director to carry out his duties under State and Federal laws.

(21) For land disposal facilities, if a case-by-case extension has been approved under Section R315-268-5 or a petition has been approved under Section R315-268-6, a copy of the notice of approval for the extension or petition is required.

(22) A summary of the pre-application meeting, along with a list of attendees and their addresses, and copies of any written comments or materials submitted at the meeting, as required under Subsection R315-124-31(c).

(c) Additional information requirements. The following additional information regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing a regulated unit except as provided in Subsection R315-264-90(b):

(1) A summary of the ground-water monitoring data obtained during the interim status period under 40 CFR 265.90 through 94, which are adopted by reference, where applicable.

(2) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including ground-water flow direction and rate, and the basis for such identification, i.e., the information obtained from hydrogeologic investigations of the facility area.

(3) On the topographic map required under Subsection R315-270-14(b)(19), a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under Section R315-264-95, the proposed location of ground-water monitoring wells as required under Section R315-264-97, and, to the extent possible, the information required in Subsection R315-270-14(c)(2).

(4) A description of any plume of contamination that has entered the ground water from a regulated unit at the time that the application was submitted that:

(i) Delineates the extent of the plume on the topographic map required under Subsection R315-270-14(b)(19);

(ii) Identifies the concentration of each appendix IX, of Rule R315-264, constituent throughout the plume or identifies the maximum concentrations of each appendix IX constituent in the plume.

(5) Detailed plans and an engineering report describing the proposed ground water monitoring program to be implemented to meet the requirements of Section R315-264-97.

(6) If the presence of hazardous constituents has not been detected in the ground water at the time of permit application, the owner or operator shall submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of Section R315-264-98. This submission shall address the following items specified under Section R315-264-98:

(i) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the ground water;

(ii) A proposed ground-water monitoring system;

(iii) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(iv) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(7) If the presence of hazardous constituents has been detected in the ground water at the point of compliance at the time of the permit application, the owner or operator shall submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of Section R315-264-99. Except as provided in Subsection R315-264-98(h)(5), the owner or operator shall also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of Section R315-264-100, unless the owner or operator obtains written authorization in advance from the Director to submit a proposed permit schedule for submittal of such a plan. To demonstrate compliance with Section R315-264-99, the owner or operator shall address the following items:

(i) A description of the wastes previously handled at the facility;

(ii) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(iii) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with Sections R315-264-97 and 99;

(iv) Proposed concentration limits for each hazardous constituent, based on the criteria set forth in Subsection R315-264-94(a), including a justification for establishing any alternate concentration limits;

(v) Detailed plans and an engineering report describing the proposed ground-water monitoring system, in accordance with the requirements of Section R315-264-97; and

(vi) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(8) If hazardous constituents have been measured in the ground water which exceed the concentration limits established under Section R315-264-94 Table 1, or if ground water monitoring conducted at the time of permit application under 40 CFR 265.90 through 94, which are adopted by reference, at the waste boundary indicates the presence of hazardous constituents from the facility in ground water over background concentrations, the owner or operator shall submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of Section R315-264-100. However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the Director that alternate concentration limits will protect human health and the environment after considering the criteria listed in Subsection R315-264-94(b). An owner or operator who is not required to establish a corrective action program for this reason shall instead submit sufficient information to establish a compliance monitoring program which meets the requirements of Section R315-264-99 and Subsection R315-270-14(c)(6). To demonstrate compliance with Section R315-264-100, the owner or operator shall address, at a minimum, the following items:

(i) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(ii) The concentration limit for each hazardous constituent found in the ground water as set forth in Section R315-264-94;

(iii) Detailed plans and an engineering report describing the corrective action to be taken; and

(iv) A description of how the ground-water monitoring program will demonstrate the adequacy of the corrective action.

(v) The permit may contain a schedule for submittal of the information required in Subsections R315-270-14(c)(8)(iii) and (iv) provided the owner or operator obtains written authorization from the Director prior to submittal of the complete permit application.

(d) Information requirements for solid waste management units.

(1) The following information is required for each solid waste management unit at a facility seeking a permit:

(i) The location of the unit on the topographic map required under Subsection R315-270-14(b)(19).

(ii) Designation of type of unit.

(iii) General dimensions and structural description, supply any available drawings.

(iv) When the unit was operated.

(v) Specification of all wastes that have been managed at the unit, to the extent available.

(2) The owner or operator of any facility containing one or more solid waste management units shall submit all available information pertaining to any release of hazardous wastes or hazardous constituents from such unit or units.

(3) The owner/operator shall conduct and provide the results of sampling and analysis of groundwater, landsurface, and subsurface strata, surface water, or air, which may include the installation of wells, where the Director ascertains it is necessary to complete a Facility Assessment that will determine if a more complete investigation is necessary

R315-270-15. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Containers.

Except as otherwise provided in Section R315-264-170, owners or operators of facilities that store containers of hazardous waste shall provide the following additional information:

(a) A description of the containment system to demonstrate compliance with Section R315-264-175. Show at least the following:

(1) Basic design parameters, dimensions, and materials of construction.

(2) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.

(3) Capacity of the containment system relative to the number and volume of containers to be stored.

(4) Provisions for preventing or managing run-on.

(5) How accumulated liquids can be analyzed and removed to prevent overflow.

(b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with Subsection R315-264-175(c), including:

(1) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

(2) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

(c) Sketches, drawings, or data demonstrating compliance with Section R315-264-176, location of buffer zone and containers holding ignitable or reactive wastes, and Subsection R315-264-177(c), location of incompatible wastes, where applicable.

(d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with Subsections R315-264-177(a) and (b), and Subsections R315-264-17(b) and (c).

(e) Information on air emission control equipment as required in Section R315-270-27.

R315-270-16. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Tank Systems.

Except as otherwise provided in Section R315-264-190, owners and operators of facilities that use tanks to store or treat hazardous waste shall provide the following additional information:

(a) A written assessment that is reviewed and certified by a qualified Professional Engineer as to the structural integrity and suitability for handling hazardous waste of each tank system, as required under Sections R315-264-191 and 192;

(b) Dimensions and capacity of each tank;

(c) Description of feed systems, safety cutoff, bypass systems, and pressure controls, e.g., vents;

(d) A diagram of piping, instrumentation, and process flow for each tank system;

(e) A description of materials and equipment used to provide external corrosion protection, as required under Subsection R315-264-192(a)(3)(ii);

(f) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with Subsections R315-264-192(b), (c), (d), and (e);

(g) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of Subsections R315-264-193(a), (b), (c), (d), (e), and (f);

(h) For tank systems for which a variance from the requirements of Section R315-264-193 is sought, as provided by Subsection R315-264-193(g):

(1) Detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the ground water or surface water during the life of the facility, or

(2) A detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment.

(i) Description of controls and practices to prevent spills and overflows, as required under Subsection R315-264-194(b); and

(j) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of Sections R315-264-198 and 199.

(k) Information on air emission control equipment as required in Section R315-270-27.

R315-270-17. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Surface Impoundments.

Except as otherwise provided in Section R315-264-1, owners and operators of facilities that store, treat or dispose of hazardous waste in surface impoundments shall provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each surface impoundment;

(b) Detailed plans and an engineering report describing how the surface impoundment is designed and is or will be constructed, operated, and maintained to meet the requirements of Section R315-264-19 and Sections R315-264-221through 223, addressing the following items:

(1) The liner system, except for an existing portion of a surface impoundment. If an exemption from the requirement for a liner is sought as provided by Subsection R315-264-221(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(2) The double liner and leak, leachate, detection, collection, and removal system, if the surface impoundment shall meet the requirements of Subsection R315-264-221(c). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by Subsections R315-264-221(d), (e), or (f), submit appropriate information;

(3) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(4) The construction quality assurance (CQA) plan if required under Section R315-264-19;

(5) Proposed action leakage rate, with rationale, if required under Section R315-264-222, and response action plan, if required under Section R315-264-223;

(6) Prevention of overtopping; and

(7) Structural integrity of dikes;

(c) A description of how each surface impoundment, including the double liner system, leak detection system, cover system, and appurtenances for control of overtopping, will be inspected in order to meet the requirements of Subsections R315-264-226(a), (b), and (d).

This information shall be included in the inspection plan submitted under Subsection R315-270-14(b)(5);

(d) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under Subsection R315-264-226(c). For new units, the owner or operator shall submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(e) A description of the procedure to be used for removing a surface impoundment from service, as required under Subsections R315-264-227(b) and (c). This information should be included in the contingency plan submitted under Subsection R315-270-14(b)(7);

(f) A description of how hazardous waste residues and contaminated materials will be removed from the unit at closure, as required under Subsection R315-264-228(a)(1). For any wastes not to be removed from the unit upon closure, the owner or operator shall submit detailed plans and an engineering report describing how Subsections R315-264-228(a)(2) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under Subsection R315-270-14(b)(13);

(g) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how Section R315-264-229 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how Section R315-264-230 will be complied with.

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how the surface impoundment is or will be designed, constructed, operated, and maintained to meet the requirements of Section R315-264-231. This submission shall address the following items as specified in Section R315-264-231:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

(j) Information on air emission control equipment as required in Section R315-270-27.

R315-270-18. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Waste Piles.

Except as otherwise provided in Section R315-264-1, owners and operators of facilities that store or treat hazardous waste in waste piles shall provide the following additional information:

(a) A list of hazardous wastes placed or to be placed in each waste pile;

(b) If an exemption is sought to Section R315-264-251 and Sections R315-264-90 through 101 as provided by Subsection R315-264-250(c) or Subsection R315-264-90(b)(2), an explanation of how the standards of Subsection R315-264-250(c) will be complied with or detailed plans and an engineering report describing how the requirements of Subsection R315-264-90(b)(2) will be met.

(c) Detailed plans and an engineering report describing how the waste pile is designed and is or will be constructed, operated, and maintained to meet the requirements of Sections R315-264-19 and R315-264-251through 253, addressing the following items:

(1)(i) The liner system, except for an existing portion of a waste pile, if the waste pile shall meet the requirements of Subsection R315-264-251(a). If an exemption from the requirement for a liner is sought as provided by Subsection R315-264-251(b), submit detailed plans, and engineering and hydrogeological reports, as appropriate, describing alternate designs and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(ii) The double liner and leak, leachate, detection; collection; and removal system, if the waste pile shall meet the requirements of Subsection R315-264-251(c). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by Subsections R315-264-251(d), (e), or (f), submit appropriate information;

(iii) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(iv) The construction quality assurance (CQA) plan if required under Section R315-264-19;

(v) Proposed action leakage rate, with rationale, if required under Section R315-264-252, and response action plan, if required under Section R315-264-253;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding units associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(d) A description of how each waste pile, including the double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of Subsections R315-264-254(a), (b), and (c). This information shall be included in the inspection plan submitted under Subsection R315-270-14(b)(5);

(e) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(f) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of Section R315-264-256 will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be placed in a waste pile, an explanation of how Section R315-264-257 will be complied with;

(h) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as

required under Subsection R315-264-258(a). For any waste not to be removed from the waste pile upon closure, the owner or operator shall submit detailed plans and an engineering report describing how Subsections R315-264-310(a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under Subsection R315-270-14(b)(13).

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a waste pile that is not enclosed, as defined in Section R315-264-250(c), is or will be designed, constructed, operated, and maintained to meet the requirements of Section R315-264-259. This submission shall address the following items as specified in Section R315-264-259:

(1) The volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

R315-270-19. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Incinerators.

Except as Subsection R315-264-340 and Subsection R315-270-19(e) provide otherwise, owners and operators of facilities that incinerate hazardous waste shall fulfill the requirements of Subsection R315-270-19(a), (b), or (c).

(a) When seeking an exemption under Subsection R315-264-340 (b) or (c), Ignitable, corrosive, or reactive wastes only:

(1) Documentation that the waste is listed as a hazardous waste in Sections R315-261-30 through 35 solely because it is ignitable, Hazard Code I, or corrosive, Hazard Code C, or both; or

(2) Documentation that the waste is listed as a hazardous waste in Sections R315-261-30 through 35 solely because it is reactive, Hazard Code R, for characteristics other than those listed in Subsection R315-261-23(a)(4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

(3) Documentation that the waste is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous waste under Sections R315-261-20 through 24; or

(4) Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in Subsections R315-261-23(a)(1), (2), (3), (6), (7), or (8), and that it will not be burned when other hazardous wastes are present in the combustion zone; or

(b) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with Section R315-270-62; or

(c) In lieu of a trial burn, the applicant may submit the following information:

(1) An analysis of each waste or mixture of wastes to be burned including:

(i) Heat value of the waste in the form and composition in which it will be burned.

(ii) Viscosity, if applicable, or description of physical form of the waste.

(iii) An identification of any hazardous organic constituents listed in Rule R315-261, appendix VIII, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Rule R315-261, appendix VIII, which would reasonably not be expected to be found in the waste. The constituents excluded from analysis shall be identified and the basis for their exclusion stated. The waste analysis shall rely on appropriate analytical techniques.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.

(v) A quantification of those hazardous constituents in the waste which may be designated as POHC's based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in Section R315-264-343.

(2) A detailed engineering description of the incinerator, including:

(i) Manufacturer's name and model number of incinerator.

(ii) Type of incinerator.

(iii) Linear dimension of incinerator unit including cross sectional area of combustion chamber.

(iv) Description of auxiliary fuel system, type/feed.

(v) Capacity of prime mover.

(vi) Description of automatic waste feed cutoff system(s).

(vii) Stack gas monitoring and pollution control monitoring system.

(viii) Nozzle and burner design.

(ix) Construction materials.

(x) Location and description of temperature, pressure, and flow indicating devices and control devices.

(3) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in Subsection R315-270-19(c)(1). This analysis should specify the POHC's which the applicant has identified in the waste for which a permit is sought, and any differences from the POHC's in the waste for which burn data are provided.

(4) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available.

(5) A description of the results submitted from any previously conducted trial burn(s) including:

(i) Sampling and analysis techniques used to calculate performance standards in Section R315-264-343,

(ii) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity, including a statement concerning the precision and accuracy of this measurement,

(6) The expected incinerator operation information to demonstrate compliance with Sections R315-264-343 and 345 including:
(i) Expected carbon monoxide (CO) level in the stack exhaust gas.
(ii) Waste feed rate.
(iii) Combustion zone temperature.
(iv) Indication of combustion gas velocity.
(v) Expected stack gas volume, flow rate, and temperature.
(vi) Computed residence time for waste in the combustion zone.
(vii) Expected hydrochloric acid removal efficiency.
(viii) Expected fugitive emissions and their control procedures.
(ix) Proposed waste feed cut-off limits based on the identified significant operating parameters.
(7) Such supplemental information as the Director finds necessary to achieve the purposes of Subsection R315-270-19(c).
(8) Waste analysis data, including that submitted in Subsection R315-270-19(c)(1), sufficient to allow the Director to specify as permit Principal Organic Hazardous Constituents, permit POHC's, those constituents for which destruction and removal efficiencies will be required.
(d) The Director shall approve a permit application without a trial burn if he finds that:
(1) The wastes are sufficiently similar; and
(2) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify, under Section R315-264-345, operating conditions that will ensure that the performance standards in Section R315-264-343 shall be met by the incinerator.
(e) When an owner or operator of a hazardous waste incineration unit becomes subject to permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE, i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d) documenting compliance with all applicable requirements of Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE, the requirements of Section R315-270-19 do not apply, except those provisions the Director determines are necessary to ensure compliance with Subsections R315-264-345(a) and (c) if the owner or operator elect to comply with Subsection R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Director may apply the provisions of Section R315-270-19, on a case-by-case basis, for purposes of information collection in accordance with Subsections R315-270-10(k) and (l), R315-270-32(b)(2), and (b)(3).

R315-270-20. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Land Treatment Facilities.
Except as otherwise provided in Section R315-264-1, owners and operators of facilities that use land treatment to dispose of hazardous waste shall provide the following additional information:
(a) A description of plans to conduct a treatment demonstration as required under Section R315-264-272. The description shall include the following information;
(1) The wastes for which the demonstration will be made and the potential hazardous constituents in the waste;
(2) The data sources to be used to make the demonstration, e.g., literature, laboratory data, field data, or operating data;
(3) Any specific laboratory or field test that will be conducted, including:
(i) The type of test, e.g., column leaching, degradation;
(ii) Materials and methods, including analytical procedures;
(iii) Expected time for completion;
(iv) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices.
(b) A description of a land treatment program, as required under Section R315-264-271. This information shall be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program shall address the following items:
(1) The wastes to be land treated;
(2) Design measures and operating practices necessary to maximize treatment in accordance with Subsection R315-264-273(a) including:
(i) Waste application method and rate;
(ii) Measures to control soil pH;
(iii) Enhancement of microbial or chemical reactions;
(iv) Control of moisture content;
(3) Provisions for unsaturated zone monitoring, including:
(i) Sampling equipment, procedures, and frequency;
(ii) Procedures for selecting sampling locations;
(iii) Analytical procedures;
(iv) Chain of custody control;
(v) Procedures for establishing background values;
(vi) Statistical methods for interpreting results;
(vii) The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in Subsection R315-264-278(a);
(4) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste

analysis performed pursuant to Section R315-264-13;

(5) The proposed dimensions of the treatment zone;

(c) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of Section R315-264-273. This submission shall address the following items:

(1) Control of run-on;

(2) Collection and control of run-off;

(3) Minimization of run-off of hazardous constituents from the treatment zone;

(4) Management of collection and holding facilities associated with run-on and run-off control systems;

(5) Periodic inspection of the unit. This information should be included in the inspection plan submitted under Subsection R315-270-14(b)(5);

(6) Control of wind dispersal of particulate matter, if applicable;

(d) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under Subsection R315-264-276(a) will be conducted including:

(1) Characteristics of the food-chain crop for which the demonstration will be made.

(2) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

(3) Procedures for crop growth, sample collection, sample analysis, and data evaluation;

(4) Characteristics of the comparison crop including the location and conditions under which it was or will be grown;

(e) If food-chain crops are to be grown, and cadmium is present in the land-treated waste, a description of how the requirements of Subsection R315-264-276(b) will be complied with;

(f) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under Subsections R315-264-280(a)(8) and R315-264-280(c)(2). This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under Subsection R315-270-14(b)(13);

(g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of Section R315-264-281 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how Section R315-264-282 will be complied with.

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of Section R315-264-283. This submission shall address the following items as specified in Section R315-264-283:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

R315-270-21. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Landfills.

Except as otherwise provided in Section R315-264-1, owners and operators of facilities that dispose of hazardous waste in landfills shall provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each landfill or landfill cell;

(b) Detailed plans and an engineering report describing how the landfill is designed and is or will be constructed, operated, and maintained to meet the requirements of Sections R315-264-19 and Sections R315-264-301 through 303, addressing the following items:

(1)(i) The liner system, except for an existing portion of a landfill, if the landfill shall meet the requirements of Subsection R315-264-301(a). If an exemption from the requirement for a liner is sought as provided by Subsection R315-264-301(b), submit detailed plans, and engineering and hydrogeological reports, as appropriate, describing alternate designs and operating practices that shall, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(ii) The double liner and leak, leachate; detection; collection; and removal system; if the landfill shall meet the requirements of Subsection R315-264-301(c). If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by Subsection R315-264-301(d), (e), or (f), submit appropriate information;

(iii) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(iv) The construction quality assurance (CQA) plan if required under Section R315-264-19;

(v) Proposed action leakage rate, with rationale, if required under Section R315-264-302, and response action plan, if required under Section R315-264-303;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding facilities associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(c) A description of how each landfill, including the double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of Subsections R315-264-303(a), (b), and (c). This information shall be included in the inspection plan submitted under Subsection R315-270-14(b)(5);

(d) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements

of Subsections R315-264-303(a) and (b). This information should be included in the inspection plan submitted under Subsection R315-270-14(b)(5).

(e) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with Subsection R315-264-310(a), and a description of how each landfill will be maintained and monitored after closure in accordance with Subsection R315-264-310(b). This information should be included in the closure and post-closure plans submitted under Subsection R315-270-14(b)(13).

(f) If ignitable or reactive wastes will be landfilled, an explanation of how the standards of Section R315-264-312 will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be landfilled, an explanation of how Section R315-264-313 will be complied with;

(h) If bulk or non-containerized liquid waste or wastes containing free liquids is to be landfilled prior to May 8, 1985, an explanation of how the requirements of Subsection R315-264-314(a) will be complied with;

(i) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of Section R315-264-315 or Section R315-264-316, as applicable, will be complied with.

(j) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of Section R315-264-317. This submission shall address the following items as specified in Section R315-264-317:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

R315-270-22. Hazardous Waste Permit Program Specific Part B Information Requirements for Boilers and Industrial Furnaces Burning Hazardous Waste.

When an owner or operator of a cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to Section 19-6-108 permit requirements after October 12, 2005, or when an owner or operator of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in 40 CFR 63, subpart EEE, i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d) documenting compliance with all applicable requirements of Subsection R307-214-2(39) which incorporates 40 CFR part 63, subpart EEE, the requirements of Section R315-270-22 do not apply. The requirements of Section R315-270-22 do apply, however, if the Director determines certain provisions are necessary to ensure compliance with Subsections R315-266-102(e)(1) and (e)(2)(iii) if the owner or operator elects to comply with Subsection R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if the facility is an area source and the owner or operator elects to comply with the Sections R315-266-105 through 107 standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals; or the Director determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with Subsections R315-270-10(k), R315-270-10(l), and Subsections R315-270-32(b)(2), and 32(b)(3).

(a) Trial burns

(1) General. Except as provided below, owners and operators that are subject to the standards to control organic emissions provided by Section R315-266-104, standards to control particulate matter provided by Section R315-266-105, standards to control metals emissions provided by Section R315-266-106, or standards to control hydrogen chloride or chlorine gas emissions provided by Section R315-266-107 shall conduct a trial burn to demonstrate conformance with those standards and shall submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with Section R315-270-66.

(i) A trial burn to demonstrate conformance with a particular emission standard may be waived under provisions of Sections R315-266-104 through 107 and Subsections R315-270-22(a)(2) through (a)(5); and

(ii) The owner or operator may submit data in lieu of a trial burn, as prescribed in Subsection R315-270-22 (a)(6).

(2) Waiver of trial burn for DRE

(i) Boilers operated under special operating requirements. When seeking to be permitted under Subsections R315-266-104(a)(4) and R315-266-110 that automatically waive the DRE trial burn, the owner or operator of a boiler shall submit documentation that the boiler operates under the special operating requirements provided by Section R315-266-110.

(ii) Boilers and industrial furnaces burning low risk waste. When seeking to be permitted under the provisions for low risk waste provided by Subsections R315-266-104(a)(5) and R315-266-109(a) that waive the DRE trial burn, the owner or operator shall submit:

(A) Documentation that the device is operated in conformance with the requirements of Subsection R315-266-109(a)(1).

(B) Results of analyses of each waste to be burned, documenting the concentrations of nonmetal compounds listed in appendix VIII of Rule R315-261, except for those constituents that would reasonably not be expected to be in the waste. The constituents excluded from analysis shall be identified and the basis for their exclusion explained. The analysis shall rely on appropriate analytical techniques.

(C) Documentation of hazardous waste firing rates and calculations of reasonable, worst-case emission rates of each constituent identified in Subsection R315-270-22(a)(2)(ii)(B) using procedures provided by Subsection R315-266-109(a)(2)(ii).

(D) Results of emissions dispersion modeling for emissions identified in Subsection R315-270-22(a)(2)(ii)(C) using modeling procedures prescribed by Subsection R315-266-106(h). The Director shall review the emission modeling conducted by the applicant to determine conformance with these procedures. The Director shall either approve the modeling or determine that alternate or supplementary

modeling is appropriate.

(E) Documentation that the maximum annual average ground level concentration of each constituent identified in Subsection R315-270-22(a)(2)(ii)(B) quantified in conformance with Subsection R315-270-22(a)(2)(ii)(D) does not exceed the allowable ambient level established in appendices IV or V of Rule R315-266. The acceptable ambient concentration for emitted constituents for which a specific Reference Air Concentration has not been established in appendix IV or Risk-Specific Dose has not been established in appendix V is 0.1 micrograms per cubic meter, as noted in the footnote to appendix IV.

(3) Waiver of trial burn for metals. When seeking to be permitted under the Tier I, or adjusted Tier I, metals feed rate screening limits provided by Subsections R315-266-106 (b) and (e) that control metals emissions without requiring a trial burn, the owner or operator shall submit:

(i) Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the concentration of each metal controlled by Subsection R315-266-106(b) or (e) in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of each metal;

(iii) Documentation of how the applicant shall ensure that the Tier I feed rate screening limits provided by Subsection R315-266-106(b) or (e) shall not be exceeded during the averaging period provided by Subsection R315-266-106(b) or (e);

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by Subsections R315-266-106(b)(3) through (b)(5);

(v) Documentation of compliance with the provisions of Subsection R315-266-106(b)(6), if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by Subsection R315-266-106(b)(7) for eligibility to comply with the screening limits; and

(vii) Proposed sampling and metals analysis plan for the hazardous waste, other fuels, and industrial furnace feed stocks.

(4) Waiver of trial burn for particulate matter. When seeking to be permitted under the low risk waste provisions of Subsection R315-266-109(b) which waives the particulate standard, and trial burn to demonstrate conformance with the particulate standard, applicants shall submit documentation supporting conformance with Subsections R315-270-22(a)(2)(ii) and (a)(3).

(5) Waiver of trial burn for HCl and Cl_2. When seeking to be permitted under the Tier I, or adjusted Tier I, feed rate screening limits for total chloride and chlorine provided by Subsections R315-266-107(b)(1) and (e) that control emissions of hydrogen chloride (HCl) and chlorine gas (Cl_2) without requiring a trial burn, the owner or operator shall submit:

(i) Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the levels of total chloride and chlorine in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of total chloride and chlorine;

(iii) Documentation of how the applicant shall ensure that the Tier I, or adjusted Tier I, feed rate screening limits provided by Subsection R315-266-107(b)(1) or (e) shall not be exceeded during the averaging period provided by Subsection R315-266-107(b)(1) or (e);

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by Subsection R315-266-107(b)(3);

(v) Documentation of compliance with the provisions of Subsection R315-266-107(b)(4), if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by Subsection R315-266-107(b)(3) for eligibility to comply with the screening limits; and

(vii) Proposed sampling and analysis plan for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks.

(6) Data in lieu of trial burn. The owner or operator may seek an exemption from the trial burn requirements to demonstrate conformance with Sections R315-266-104 through 107 and Section R315-270-66 by providing the information required by Section R315-270-66 from previous compliance testing of the device in conformance with Subsection R315-266-103, or from compliance testing or trial or operational burns of similar boilers or industrial furnaces burning similar hazardous wastes under similar conditions. If data from a similar device is used to support a trial burn waiver, the design and operating information required by Section R315-270-66 shall be provided for both the similar device and the device to which the data is to be applied, and a comparison of the design and operating information shall be provided. The Director shall approve a permit application without a trial burn if he finds that the hazardous wastes are sufficiently similar, the devices are sufficiently similar, the operating conditions are sufficiently similar, and the data from other compliance tests, trial burns, or operational burns are adequate to specify, under Section R315-266-102, operating conditions that shall ensure conformance with Subsection R315-266-102(c). In addition, the following information shall be submitted:

(i) For a waiver from any trial burn:

(A) A description and analysis of the hazardous waste to be burned compared with the hazardous waste for which data from compliance testing, or operational or trial burns are provided to support the contention that a trial burn is not needed;

(B) The design and operating conditions of the boiler or industrial furnace to be used, compared with that for which comparative burn data are available; and

(C) Such supplemental information as the Director finds necessary to achieve the purposes of Subsection R315-270-22(a).

(ii) For a waiver of the DRE trial burn, the basis for selection of POHCs used in the other trial or operational burns which demonstrate compliance with the DRE performance standard in Subsection R315-266-104(a). This analysis should specify the constituents in appendix VIII, Rule R315-261, that the applicant has identified in the hazardous waste for which a permit is sought, and any differences from the POHCs in the hazardous waste for which burn data are provided.

(b) Alternative HC limit for industrial furnaces with organic matter in raw materials. Owners and operators of industrial furnaces

requesting an alternative HC limit under Subsection R315-266-104(f) shall submit the following information at a minimum:

(1) Documentation that the furnace is designed and operated to minimize HC emissions from fuels and raw materials;

(2) Documentation of the proposed baseline flue gas HC, and CO, concentration, including data on HC, and CO, levels during tests when the facility produced normal products under normal operating conditions from normal raw materials while burning normal fuels and when not burning hazardous waste;

(3) Test burn protocol to confirm the baseline HC, and CO, level including information on the type and flow rate of all feedstreams, point of introduction of all feedstreams, total organic carbon content, or other appropriate measure of organic content, of all nonfuel feedstreams, and operating conditions that affect combustion of fuel(s) and destruction of hydrocarbon emissions from nonfuel sources;

(4) Trial burn plan to:

(i) Demonstrate that flue gas HC, and CO, concentrations when burning hazardous waste do not exceed the baseline HC, and CO, level; and

(ii) Identify the types and concentrations of organic compounds listed in appendix VIII, Rule R315-261, that are emitted when burning hazardous waste in conformance with procedures prescribed by the Director;

(5) Implementation plan to monitor over time changes in the operation of the facility that could reduce the baseline HC level and procedures to periodically confirm the baseline HC level; and

(6) Such other information as the Director finds necessary to achieve the purposes of Subsection R315-270-22(b).

(c) Alternative metals implementation approach. When seeking to be permitted under an alternative metals implementation approach under Subsection R315-266-106(f), the owner or operator shall submit documentation specifying how the approach ensures compliance with the metals emissions standards of Subsection R315-266-106(c) or (d) and how the approach can be effectively implemented and monitored. Further, the owner or operator shall provide such other information that the Director finds necessary to achieve the purposes of Subsection R315-270-22(b).

(d) Automatic waste feed cutoff system. Owners and operators shall submit information describing the automatic waste feed cutoff system, including any pre-alarm systems that may be used.

(e) Direct transfer. Owners and operators that use direct transfer operations to feed hazardous waste from transport vehicles, containers, as defined in Section R315-266-111, directly to the boiler or industrial furnace shall submit information supporting conformance with the standards for direct transfer provided by Section R315-266-111.

(f) Residues. Owners and operators that claim that their residues are excluded from regulation under the provisions of Section R315-266-112 shall submit information adequate to demonstrate conformance with those provisions.

R315-270-23. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Miscellaneous Units.

Except as otherwise provided in Section R315-264-600, owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units shall provide the following additional information:

(a) A detailed description of the unit being used or proposed for use, including the following:

(1) Physical characteristics, materials of construction, and dimensions of the unit;

(2) Detailed plans and engineering reports describing how the unit will be located, designed, constructed, operated, maintained, monitored, inspected, and closed to comply with the requirements of Sections R315-264-601 and 602; and

(3) For disposal units, a detailed description of the plans to comply with the post-closure requirements of Section R315-264-603.

(b) Detailed hydrologic, geologic, and meteorologic assessments and land-use maps for the region surrounding the site that address and ensure compliance of the unit with each factor in the environmental performance standards of Section R315-264-601. If the applicant can demonstrate that he does not violate the environmental performance standards of Section R315-264-601 and the Director agrees with such demonstration, preliminary hydrologic, geologic, and meteorologic assessments will suffice.

(c) Information on the potential pathways of exposure of humans or environmental receptors to hazardous waste or hazardous constituents and on the potential magnitude and nature of such exposures.

(d) For any treatment unit, a report on a demonstration of the effectiveness of the treatment based on laboratory or field data.

(e) Any additional information determined by the Director to be necessary for evaluation of compliance of the unit with the environmental performance standards of Section R315-264-601.

R315-270-24. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Process Vents.

Except as otherwise provided in Section R315-264-1, owners and operators of facilities that have process vents to which Sections R315-264-1030 through 1036 applies shall provide the following additional information:

(a) For facilities that cannot install a closed-vent system and control device to comply with the provisions of Sections R315-264-1030 through 1036 on the effective date that the facility becomes subject to the provisions of Sections R315-264-1030 through 1036 or 40 CFR 265.1030 through 1035, which are adopted by reference, an implementation schedule as specified in Subsection R315-264-1033(a)(2).

(b) Documentation of compliance with the process vent standards in Section R315-264-1032, including:

(1) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility, i.e., the total emissions for all affected vents at the facility, and the approximate location within the facility of each affected unit, e.g., identify the hazardous waste management units on a facility plot plan.

(2) Information and data supporting estimates of vent emissions and emission reduction achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, estimates of vent emissions and emission reductions shall be made using operating parameter values, e.g., temperatures, flow rates, or concentrations, that represent the conditions

that exist when the waste management unit is operating at the highest load or capacity level reasonably expected to occur.

(3) Information and data used to determine whether or not a process vent is subject to the requirements of Section R315-264-1032.

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with the requirements of Section R315-264-1032, and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in Subsection R315-264-1035(b)(3).

(d) Documentation of compliance with Section R315-264-1033, including:

(1) A list of all information references and sources used in preparing the documentation.

(2) Records, including the dates, of each compliance test required by Subsection R315-264-1033(k).

(3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions" or other engineering texts acceptable to the Director that present basic control device information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in Subsection R315-264-1035(b)(4)(iii).

(4) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(5) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater unless the total organic emission limits of Subsection R315-264-1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

R315-270-25. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Equipment.

Except as otherwise provided in Subsection R315-264-1, owners and operators of facilities that have equipment to which Sections R315-264-1050 through 1065 applies shall provide the following additional information:

(a) For each piece of equipment to which Sections R315-264-1050 through 1065 applies:

(1) Equipment identification number and hazardous waste management unit identification.

(2) Approximate locations within the facility, e.g., identify the hazardous waste management unit on a facility plot plan.

(3) Type of equipment, e.g., a pump or pipeline valve.

(4) Percent by weight total organics in the hazardous waste stream at the equipment.

(5) Hazardous waste state at the equipment, e.g., gas/vapor or liquid.

(6) Method of compliance with the standard, e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals".

(b) For facilities that cannot install a closed-vent system and control device to comply with the provisions of Sections R315-264-1050 through 1065 on the effective date that the facility becomes subject to the provisions of Sections R315-264-1050 through 1065 or 40 CFR 265.1050 through 1064, which are adopted by reference, an implementation schedule as specified in Subsection R315-264-1033(a)(2).

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in Subsection R315-264-1035(b)(3).

(d) Documentation that demonstrates compliance with the equipment standards in Sections R315-264-1052 through 1059. This documentation shall contain the records required under Section R315-264-1064. The Director may request further documentation before deciding if compliance has been demonstrated.

(e) Documentation to demonstrate compliance with Section R315-264-1060 shall include the following information:

(1) A list of all information references and sources used in preparing the documentation.

(2) Records, including the dates, of each compliance test required by Subsection R315-264-1033(j).

(3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions" or other engineering texts acceptable to the Director that present basic control device information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in Subsection R315-264-1035(b)(4)(iii).

(4) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur.

(5) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater.

R315-270-26. Hazardous Waste Permit Program -- Special Part B Information Requirements for Drip Pads.

Except as otherwise provided by Subsection R315-264-1, owners and operators of hazardous waste treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads shall provide the following additional information:

(a) A list of hazardous wastes placed or to be placed on each drip pad.

(b) If an exemption is sought to Sections R315-264-90 through 101, as provided by Subsection R315-264-90, detailed plans and an engineering report describing how the requirements of Subsection R315-264-90(b)(2) shall be met.

(c) Detailed plans and an engineering report describing how the drip pad is or will be designed, constructed, operated and maintained to meet the requirements of Section R315-264-573, including the as-built drawings and specifications. This submission shall

address the following items as specified in Section R315-264-571:

(1) The design characteristics of the drip pad;

(2) The liner system;

(3) The leakage detection system, including the leak detection system and how it is designed to detect the failure of the drip pad or the presence of any releases of hazardous waste or accumulated liquid at the earliest practicable time;

(4) Practices designed to maintain drip pads;

(5) The associated collection system;

(6) Control of run-on to the drip pad;

(7) Control of run-off from the drip pad;

(8) The interval at which drippage and other materials will be removed from the associated collection system and a statement demonstrating that the interval will be sufficient to prevent overflow onto the drip pad;

(9) Procedures for cleaning the drip pad at least once every seven days to ensure the removal of any accumulated residues of waste or other materials, including but not limited to rinsing, washing with detergents or other appropriate solvents, or steam cleaning and provisions for documenting the date, time, and cleaning procedure used each time the pad is cleaned.

(10) Operating practices and procedures that will be followed to ensure that tracking of hazardous waste or waste constituents off the drip pad due to activities by personnel or equipment is minimized;

(11) Procedures for ensuring that, after removal from the treatment vessel, treated wood from pressure and non-pressure processes is held on the drip pad until drippage has ceased, including recordkeeping practices;

(12) Provisions for ensuring that collection and holding units associated with the run-on and run-off control systems are emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system;

(13) If treatment is carried out on the drip pad, details of the process equipment used, and the nature and quality of the residuals.

(14) A description of how each drip pad, including appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of Section R315-264-573. This information should be included in the inspection plan submitted under Subsection R315-270-14(b)(5).

(15) A certification signed by a qualified Professional Engineer, stating that the drip pad design meets the requirements of Subsection R315-264-573(a) through (f).

(16) A description of how hazardous waste residues and contaminated materials will be removed from the drip pad at closure, as required under Subsection R315-264-575(a). For any waste not to be removed from the drip pad upon closure, the owner or operator shall submit detailed plans and an engineering report describing how Subsections R315-264-310 (a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under Subsection R315-270-14(b)(13).

R315-270-27. Hazardous Waste Permit Program -- Specific Part B Information Requirements for Air Emission Controls for Tanks, Surface Impoundments, and Containers.

(a) Except as otherwise provided in Section R315-264-1, owners and operators of tanks, surface impoundments, or containers that use air emission controls in accordance with the requirements of Sections R315-264-1080 through 1090, shall provide the following additional information:

(1) Documentation for each floating roof cover installed on a tank subject to Subsection R315-264-1084(d)(1) or (d)(2) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the applicable design specifications as listed in Subsection R315-264-1084(e)(1) or (f)(1).

(2) Identification of each container area subject to the requirements of Sections R315-264-1080 through 1090 and certification by the owner or operator that the requirements of Sections R315-270-10 through 29 are met.

(3) Documentation for each enclosure used to control air pollutant emissions from tanks or containers in accordance with the requirements of Subsection R315-264-1084(d)(5) or 1086(e)(1)(ii) that includes records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, appendix B.

(4) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of Subsection R315-264-1085(c) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Subsection R315-264-1085(c)(1).

(5) Documentation for each closed-vent system and control device installed in accordance with the requirements of Section R315-264-1087 that includes design and performance information as specified in Subsections R315-270-24(c) and (d).

(6) An emission monitoring plan for both Method 21 in 40 CFR part 60, appendix A and control device monitoring methods. This plan shall include the following information: monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.

(7) When an owner or operator of a facility subject to 40 CFR 265.1080 through 1090, which are adopted by reference, cannot comply with Sections R315-264-1080 through 1090 by the date of permit issuance, the schedule of implementation required under 40 CFR 265.1082, which is adopted by reference.

R315-270-28. Hazardous Waste Permit Program -- Part B Information Requirements for Post-Closure Permits.

For post-closure permits, the owner or operator is required to submit only the information specified in Subsections R315-270-

14(b)(1), (4), (5), (6), (11), (13), (14), (16), (18) and (19), (c), and (d), unless the Director determines that additional information from Sections R315-270-14, 16, 17, 18, 20, or 21 is necessary. The owner or operator is required to submit the same information when an alternative authority is used in lieu of a post-closure permit as provided in Subsection R315-270-1(c)(7).

R315-270-29. Hazardous Waste Permit Program -- Permit Denial.

The Director may, pursuant to the procedures in Rule R315-124, deny the permit application either in its entirety or as to the active life of a hazardous waste management facility or unit only.

R315-270-30. Hazardous Waste Permit Program -- Conditions Applicable to All Permits.

The following conditions apply to all hazardous waste facility permits, and shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations shall be given in the permit.

(a) Duty to comply. The permittee shall comply with all conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit. (See Section R315-270-61). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of Sections 19-6-101 through 125 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(b) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit.

(c) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

(e) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control, and related appurtenances, which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(f) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property rights. The permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to provide information. The permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) Inspection and entry. The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

(1) Enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment, including monitoring and control equipment; practices; or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by Sections 19-6-101 through 125, any substances or parameters at any location.

(j) Monitoring and records.

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, the certification required by Subsection R315-264-73(b)(9), and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, certification, or application. This period may be extended by request of the Director at any time. The permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

(3) Records for monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(k) Signatory requirements. All applications, reports, or information submitted to the Director shall be signed and certified. See Section R315-270-11.

(l) Reporting requirements

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility except as provided in Section R315-270-42, until:

(i) The permittee has submitted to the Director by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

(ii)(A) The Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

(B) Within 15 days of the date of submission of the letter in Subsection R315-270-30(l)(2)(i), the permittee has not received notice from the Director of the Director's intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.

(3) Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under Sections 19-6-101 through 125. See Section R315-270-40.

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance which may endanger health or the environment orally within 24 hours from the time the permittee becomes aware of the circumstances, including:

(A) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

(B) Any information of a release or discharge of hazardous waste or of a fire or explosion from the HWM facility, which could threaten the environment or human health outside the facility.

(ii) The description of the occurrence and its cause shall include:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident;

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

(iii) A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Director may waive the five day written notice requirement in favor of a written report within 15 days.

(7) Manifest discrepancy report: If a significant discrepancy in a manifest is discovered, the permittee shall attempt to reconcile the discrepancy. If not resolved within 15 days, the permittee shall submit a letter report, including a copy of the manifest, to the Director. See Section R315-264-72.

(8) Unmanifested waste report: This report shall be submitted to the Director within 15 days of receipt of unmanifested waste. See Section R315-264-76

(9) Biennial report: A biennial report shall be submitted covering facility activities during odd numbered calendar years. See Section R315-264-75.

(10) Other noncompliance. The permittee shall report all instances of noncompliance not reported under Subsections R315-270-30(l)(4), (5), and (6), at the time monitoring reports are submitted. The reports shall contain the information listed in Subsections R315-270-30(l)(6).

(11) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

(m) Information repository. The Director may require the permittee to establish and maintain an information repository at any time, based on the factors set forth in Subsection R315-124-33(b). The information repository shall be governed by the provisions in Subsections R315-124-124-33(c) through (f).

R315-270-31. Hazardous Waste Permit Program -- Requirements for Recording and Reporting of Monitoring Results.

All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods, including biological monitoring methods when appropriate;

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in Rules R315-264 and 266. Reporting shall be no less frequent than specified in the above regulations.

R315-270-32. Hazardous Waste Permit Program -- Establishing Permit Conditions.

(a) In addition to conditions required in all permits (Section R315-270-30) the Director shall establish conditions, as required on a case-by-case basis, in permits under Section R315-270-50 (duration of permits), Subsection R315-270-33(a) (schedules of compliance), and Section R315-270-31 (monitoring).

(b)(1) Each permit shall include permit conditions necessary to achieve compliance with Sections 19-6-101 through 125 and rules adopted thereunder, including each of the applicable requirements specified in Rules R315-264, 266 , and 268. In satisfying this provision, the Director may incorporate applicable requirements of Rules R315-264, 266, and 268 directly into the permit or establish other permit conditions that are based on these rules.

(2) Each permit issued under Section 19-6-108 shall contain terms and conditions as the Director determines necessary to protect human health and the environment.

(3) If, as the result of an assessment(s) or other information, the Director determines that conditions are necessary in addition to those required under 40 CFR parts 63, subpart EEE, Rule R315-264 or 266 to ensure protection of human health and the environment, he shall include those terms and conditions in a permit for a hazardous waste combustion unit.

(c) An applicable requirement is a statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. An applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in Section R315-270-41.

(d) New or reissued permits, and to the extent allowed under Section R315-270-41, modified or revoked and reissued permits, shall incorporate each of the applicable requirements referenced in Section R315-270-32 and in Section R315-270-31.

(e) Incorporation. All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements shall be given in the permit.

R315-270-33. Hazardous Waste Permit Program -- Schedules of Compliance.

(a) The permit may, when appropriate, specify a schedule of compliance leading to compliance with Sections 19-6-101 through 125 and rules adopted thereunder.

(1) Time for compliance. Any schedules of compliance under Section R315-270-33 shall require compliance as soon as possible.

(2) Interim dates. Except as provided in Subsection R315-270-33(b)(1)(ii), if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of any interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(3) Reporting. The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Director in writing, of its compliance or noncompliance with the interim or final requirements.

(b) Alternative schedules of compliance. A permit applicant or permittee may cease conducting regulated activities; by receiving a terminal volume of hazardous waste and, for treatment and storage HWM facilities, closing pursuant to applicable requirements; and, for disposal HWM facilities, closing and conducting post-closure care pursuant to applicable requirements; rather than continue to operate and meet permit requirements as follows:

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term shall include the termination date, the permit shall contain a schedule leading to termination which shall ensure timely compliance with applicable requirements.

(3) If the permittee is undecided whether to cease conducting regulated activities, the Director may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements;

(iii) The second schedule shall lead to cessation of regulated activities by a date which shall ensure timely compliance with applicable requirements;

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under Subsection R315-270-33(b)(3)(i) it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Director, such as resolution of the board of directors of a corporation.

R315-270-40. Hazardous Waste Permit Program -- Transfer of Permits.

(a) A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, under Subsection R315-270-40(b) or 41(b)(2), to identify the new permittee and incorporate such other requirements as may be necessary under the appropriate Act.

(b) Changes in the ownership or operational control of a facility may be made as a Class 1 modification with prior written approval of the Director in accordance with Section R315-270-42. The new owner or operator shall submit a revised permit application no later than 90 days prior to the scheduled change. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees shall also be submitted to the Director. When a transfer of ownership or operational control occurs, the old owner or operator shall comply with the requirements of Sections R315-264-140 through 151 until the new owner or operator has demonstrated that he or she is complying with the requirements of Sections R315-264-140 through 151. The new owner or operator shall demonstrate compliance with Sections R315-264-140 through 151 requirements within six months of the date of the change of ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with Sections R315-264-140 through 151, the Director shall notify the old owner or operator that he or she no longer needs to comply with Sections R315-264-140 through 151 as of the date of demonstration.

R315-270-41. Hazardous Waste Permit Program -- Modification or Revocation and Reissuance of Permits.

When the Director receives any information; for example, inspects the facility, receives information submitted by the permittee as required in the permit, see Section R315-270-30, receives a request for revocation and reissuance under Section R315-124-5 or conducts a review of the permit file; the Director may determine whether one or more of the causes listed in Subsections R315-270-41(a) and (b) for modification, or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of Subsection R315-270-41(c), and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. See Subsection R315-124-5(c)(2). If cause does not exist under Section R315-270-41, the Director shall not modify or revoke and reissue the permit, except on request of the permittee. If a permit modification is requested by the permittee, the Director shall approve or deny the request according to the procedures of Subsection R315-270-42. Otherwise, a draft permit shall be prepared and other procedures in Rule R315-124 followed.

(a) Causes for modification. The following are causes for modification, but not revocation and reissuance, of permits; the following may be causes for revocation and reissuance, as well as modification, when the permittee requests or agrees.

(1) Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2) Information. The Director has received information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance, other than revised regulations, guidance, or test methods, and would have justified the application of different permit conditions at the time of issuance.

(3) New statutory requirements or regulations. The standards or regulations on which the permit was based have been changed by statute, through promulgation of new or amended standards or regulations, or by judicial decision after the permit was issued.

(4) Compliance schedules. The Director determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy.

(5) Notwithstanding any other provision in Section R315-270-41, when a permit for a land disposal facility is reviewed by the Director under Subsection R315-270-50(d), the Director shall modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in Rules R315-124, 260 through 266, and 270.

(b) Causes for modification or revocation and reissuance. The following are causes to modify or, alternatively, revoke and reissue a permit:

(1) Cause exists for termination under Section R315-270-43, and the Director determines that modification or revocation and reissuance is appropriate.

(2) The Director has received notification; as required in the permit, see Subsection R315-270-30(l)(3); of a proposed transfer of the permit.

(c) Facility siting. Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.

R315-270-42. Hazardous Waste Permit Program -- Permit Modification at the Request of the Permittee.

(a) Class 1 modifications.

(1) Except as provided in Subsection R315-270-42(a)(2), the permittee may put into effect Class 1 modifications listed in Appendix I of Section R315-270-42 under the following conditions:

(i) The permittee shall notify the Director concerning the modification by certified mail or other means that establish proof of delivery within 7 calendar days after the change is put into effect. This notice shall specify the changes being made to permit conditions or supporting documents referenced by the permit and shall explain why they are necessary. Along with the notice, the permittee shall provide the applicable information required by Sections R315-270-13 through R315-270-21, R315-270-62, and R315-270-63.

(ii) The permittee shall send a notice of the modification to each person on the facility mailing list, maintained by the Director in accordance with Subsection R315-124-10(c)(1)(ix), and the appropriate units of State and local government, as specified in Subsection R315-124-10(c)(1)(x). This notification shall be made within 90 calendar days after the change is put into effect. For the Class I

modifications that require prior Director approval, the notification shall be made within 90 calendar days after the Director approves the request.

(iii) Any person may request the Director to review, and the Director may for cause reject, any Class 1 modification. The Director shall inform the permittee by certified mail that a Class 1 modification has been rejected, explaining the reasons for the rejection. If a Class 1 modification has been rejected, the permittee shall comply with the original permit conditions.

(2) Class 1 permit modifications identified in Appendix I by an asterisk may be made only with the prior written approval of the Director.

(3) For a Class 1 permit modification, the permittee may elect to follow the procedures in Subsection R315-270-42(b) for Class 2 modifications instead of the Class 1 procedures. The permittee shall inform the Director of this decision in the notice required in Subsection R315-270-42(b)(1).

(b) Class 2 modifications.

(1) For Class 2 modifications, listed in Appendix I of Section R315-270-42, the permittee shall submit a modification request to the Director that:

(i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(ii) Identifies that the modification is a Class 2 modification;

(iii) Explains why the modification is needed; and

(iv) Provides the applicable information required by Sections R315-270-13 through R315-270-21, R315-270-62, and R315-270-63.

(2) The permittee shall send a notice of the modification request to each person on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in Subsections R315-124-10(c)(1)(ix) and R315-124-10(c)(1)(x) and shall publish this notice in a major local newspaper of general circulation. This notice shall be mailed and published within 7 days before or after the date of submission of the modification request, and the permittee shall provide to the Director evidence of the mailing and publication. The notice shall include:

(i) Announcement of a 60-day comment period, in accordance with Subsection R315-270-42(b)(5), and the name and address of an Agency contact to whom comments shall be sent;

(ii) Announcement of the date, time, and place for a public meeting held in accordance with Subsection R315-270-42(b)(4);

(iii) Name and telephone number of the permittee's contact person;

(iv) Name and telephone number of an Agency contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: "The permittee's compliance history during the life of the permit being modified is available from the Agency contact person."

(3) The permittee shall place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee shall hold a public meeting no earlier than 15 days after the publication of the notice required in Subsection R315-270-42(b)(2) and no later than 15 days before the close of the 60-day comment period. The meeting shall be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided 60 days to comment on the modification request. The comment period shall begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the Division contact identified in the public notice.

(6)(i) No later than 90 days after receipt of the notification request, the Director shall:

(A) Approve the modification request, with or without changes, and modify the permit accordingly;

(B) Deny the request;

(C) Determine that the modification request shall follow the procedures in Subsection R315-270-42(c) for Class 3 modifications for the following reasons:

(1) There is significant public concern about the proposed modification; or

(2) The complex nature of the change requires the more extensive procedures of Class 3.

(D) Approve the request, with or without changes, as a temporary authorization having a term of up to 180 days; or

(E) Notify the permittee that the Director will decide on the request within the next 30 days.

(ii) If the Director notifies the permittee of a 30-day extension for a decision, the Director shall, no later than 120 days after receipt of the modification request:

(A) Approve the modification request, with or without changes, and modify the permit accordingly;

(B) Deny the request;

(C) Determine that the modification request shall follow the procedures in Subsection R315-270-42(c) for Class 3 modifications for the following reasons:

(1) There is significant public concern about the proposed modification; or

(2) The complex nature of the change requires the more extensive procedures of Class 3; or

(D) Approve the request, with or without changes, as a temporary authorization having a term of up to 180 days.

(iii) If the Director fails to make one of the decisions specified in Subsection R315-270-42(b)(6)(ii) by the 120th day after receipt of the modification request, the permittee is automatically authorized to conduct the activities described in the modification request for up to 180 days, without formal action by the Director. The authorized activities shall be conducted as described in the permit modification request and shall be in compliance with appropriate standards of Rule R315-265. If the Director approves, with or without changes, or denies the modification request during the term of the temporary or automatic authorization provided for in Subsection R315-270-

42(b)(6)(i), R315-270-42(b)(6)(ii), or R315-270-42(b)(6)(iii), this action cancels the temporary or automatic authorization.

(iv)(A) In the case of an automatic authorization under Subsection R315-270-42(b)(6)(iii), or a temporary authorization under Subsections R315-270-42(b)(6)(i)(D) or R315-270-42(b)(6)(ii)(D), if the Director has not made a final approval or denial of the modification request by the date 50 days prior to the end of the temporary or automatic authorization, the permittee shall within seven days of that time send a notification to persons on the facility mailing list, and make a reasonable effort to notify other persons who submitted written comments on the modification request, that:

(1) The permittee has been authorized temporarily to conduct the activities described in the permit modification request; and

(2) Unless the Director acts to give final approval or denial of the request by the end of the authorization period, the permittee shall receive authorization to conduct the activities for the life of the permit.

(B) If the owner/operator fails to notify the public by the date specified in Subsection R315-270-42(b)(6)(iv)(A), the effective date of the permanent authorization shall be deferred until 50 days after the owner/operator notifies the public.

(v) Except as provided in Subsection R315-270-42(b)(6)(vii), if the Director does not finally approve or deny a modification request before the end of the automatic or temporary authorization period or reclassify the modification as a Class 3, the permittee is authorized to conduct the activities described in the permit modification request for the life of the permit unless modified later under Section R315-270-41 or R315-270-42. The activities authorized under Subsection R315-270-42(b) shall be conducted as described in the permit modification request and shall be in compliance with appropriate standards of Rule R315-265.

(vi) In making a decision to approve or deny a modification request, including a decision to issue a temporary authorization or to reclassify a modification as a Class 3, the Director shall consider each written comment submitted during the public comment period and shall respond in writing to each significant comment in the Director's decision.

(vii) With the written consent of the permittee, the Director may extend indefinitely or for a specified period the time periods for final approval or denial of a modification request or for reclassifying a modification as a Class 3.

(7) The Director may deny or change the terms of a Class 2 permit modification request under Subsections R315-270-42(b)(6)(i) through R315-270-42(b)(6)(iii) for the following reasons:

(i) The modification request is incomplete;

(ii) The requested modification does not comply with the appropriate requirements of Rule R315-264 or other applicable requirements; or

(iii) The conditions of the modification fail to protect human health and the environment.

(8) The permittee may perform any construction associated with a Class 2 permit modification request beginning 60 days after the submission of the request unless the Director establishes a later date for commencing construction and informs the permittee in writing before day 60.

(c) Class 3 modifications.

(1) For Class 3 modifications listed in Appendix I of Section R315-270-42, the permittee shall submit a modification request to the Director that:

(i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(ii) Identifies that the modification is a Class 3 modification;

(iii) Explains why the modification is needed; and

(iv) Provides the applicable information required by Sections R315-270-13 through R315-270-22, R315-270-62, R315-270-63, and R315-270-66.

(2) The permittee shall send a notice of the modification request to each person on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in Subsections R315-124-10(c)(1)(ix) and R315-124-10(c)(1)(x) and shall publish this notice in a major local newspaper of general circulation. This notice shall be mailed and published within seven days before or after the date of submission of the modification request, and the permittee shall provide to the Director evidence of the mailing and publication. The notice shall include:

(i) Announcement of a 60-day comment period, and a name and address of the Director to whom comments shall be sent;

(ii) Announcement of the date, time, and place for a public meeting on the modification request, in accordance with Subsection R315-270-42(c)(4);

(iii) Name and telephone number of the permittee's contact person;

(iv) Name and telephone number of a Division contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: "The permittee's compliance history during the life of the permit being modified is available from the Division's contact person."

(3) The permittee shall place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee shall hold a public meeting no earlier than 15 days after the publication of the notice required in Subsection R315-270-42(c)(2) and no later than 15 days before the close of the 60-day comment period. The meeting shall be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided at least 60 days to comment on the modification request. The comment period shall begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the Director.

(6) After the conclusion of the 60-day comment period, the Director shall grant or deny the permit modification request according to the permit modification procedures of Rule R315-124. In addition, the Director shall consider and respond to each significant written comment received during the 60-day comment period.

(d) Other modifications.

(1) In the case of modifications not explicitly listed in Appendix I of Section R315-270-42, the permittee may submit a Class 3 modification request to the Director, or the permittee may request a determination by the Director that the modification should be reviewed and approved as a Class 1 or Class 2 modification. If the permittee requests that the modification be classified as a Class 1 or 2 modification, the permittee shall provide the Director with the necessary information to support the requested classification.

(2) The Director shall make the determination described in Subsection R315-270-42(d)(1) as promptly as practicable. In determining the appropriate class for a specific modification, the Director shall consider the similarity of the modification to other modifications codified in Appendix I and the following criteria:

(i) Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the Director may require prior approval.

(ii) Class 2 modifications apply to changes that are necessary to enable a permittee to respond, in a timely manner, to:

(A) Common variations in the types and quantities of the wastes managed under the facility permit;

(B) Technological advancements; and

(C) Changes necessary to comply with new rules, where these changes can be implemented without substantially changing design specifications or management practices in the permit.

(iii) Class 3 modifications substantially alter the facility or its operation.

(e) Temporary authorizations.

(1) Upon request of the permittee, the Director may, without prior public notice and comment, grant the permittee a temporary authorization in accordance with Subsection R315-270-42(e). Temporary authorizations shall have a term of not more than 180 days.

(2)(i) The permittee may request a temporary authorization for:

(A) Any Class 2 modification meeting the criteria in Subsection R315-270-42(e)(3)(ii); and

(B) Any Class 3 modification that meets the criteria in Subsection R315-270-42(e)(3)(ii)(A) or R315-270-42(e)(3)(ii)(B); or that meets the criteria in Subsections R315-270-42(e)(3)(ii)(C) through R315-270-42(e)(3)(ii)(E) and provides improved management or treatment of a hazardous waste already listed in the facility permit.

(ii) The temporary authorization request shall include:

(A) A description of the activities to be conducted under the temporary authorization;

(B) An explanation of why the temporary authorization is necessary; and

(C) Sufficient information to ensure compliance with Rule R315-264 standards.

(iii) The permittee shall send a notice about the temporary authorization request to each person on the facility mailing list maintained by the Director and to appropriate units of State and local governments as specified in Subsections R315-124-10(c)(1)(ix) and R315-124-10(c)(1)(x). This notification shall be made within seven days of submission of the authorization request.

(3) The Director shall approve or deny the temporary authorization as quickly as practical. To issue a temporary authorization, the Director shall find:

(i) The authorized activities are in compliance with the standards of Rule R315-264; and

(ii) The temporary authorization is necessary to achieve one of the following objectives before action is likely to be taken on a modification request:

(A) To facilitate timely implementation of closure or corrective action activities;

(B) To allow treatment or storage in tanks or containers, or in containment buildings in accordance with Rule R315-268;

(C) To prevent disruption of ongoing waste management activities;

(D) To enable the permittee to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or

(E) To facilitate other changes to protect human health and the environment.

(4) A temporary authorization may be reissued for one additional term of up to 180 days provided that the permittee has requested a Class 2 or 3 permit modification for the activity covered in the temporary authorization, and:

(i) The reissued temporary authorization constitutes the Director's decision on a Class 2 permit modification in accordance with Subsection R315-270-42(b)(6)(i)(D) or R315-270-42(b)(6)(ii)(D); or

(ii) The Director determines that the reissued temporary authorization involving a Class 3 permit modification request is warranted to allow the authorized activities to continue while the modification procedures of Subsection R315-270-42(c) are conducted.

(f) Public notice and appeals of permit modification decisions.

(1) The Director shall notify persons on the facility mailing list and appropriate units of State and local government within 10 days of any decision under Section R315-270-42 to grant or deny a Class 2 or 3 permit modification request. The Director shall also notify those persons within 10 days after an automatic authorization for a Class 2 modification goes into effect under Subsection R315-270-42(b)(6)(iii) or R315-270-42(b)(6)(v).

(2) The Director's decision to grant or deny a Class 2 or 3 permit modification request under Section R315-270-42 may be appealed under the permit appeal procedures of Section R315-124-19.

(3) An automatic authorization that goes into effect under Subsection R315-270-42(b)(6)(iii) or R315-270-42(b)(6)(v) may be appealed under the permit appeal procedures of Section R315-124-19; however, the permittee may continue to conduct the activities pursuant to the automatic authorization unless and until a final determination is made.

(g) Newly regulated wastes and units.

(1) The permittee is authorized to continue to manage wastes listed or identified as hazardous under Rule R315-261, or to continue to manage hazardous waste in units newly regulated as hazardous waste management units, if:

(i) The unit was in existence as a hazardous waste facility with respect to the newly listed or characterized waste or newly

regulated waste management unit on the effective date of the final rule listing or identifying the waste, or regulating the unit;

(ii) The permittee submits a Class 1 modification request on or before the date on which the waste or unit becomes subject to the new requirements;

(iii) The permittee is in compliance with the applicable standards of Rules R315-265 and R315-266;

(iv) The permittee also submits a complete Class 2 or 3 modification request within 180 days of the effective date of the rule listing or identifying the waste, or subjecting the unit to hazardous waste management standards; and

(v) In the case of land disposal units, the permittee certifies that each unit is in compliance with applicable requirements of Rule R315-265 for groundwater monitoring and financial responsibility on the date 12 months after the effective date of the rule identifying or listing the waste as hazardous, or regulating the unit as a hazardous waste management unit. If the owner or operator fails to certify compliance with each of these requirements, the permittee shall lose authority to operate under Section R315-270-42.

(2) New wastes or units added to a facility's permit under Subsection R315-270-42(g) do not constitute expansions for the purpose of the 25 percent capacity expansion limit for Class 2 modifications.

(h) Reserved.

(i) Permit modification list. The Director shall maintain a list of each approved permit modification and shall publish a notice once a year in a State-wide newspaper that an updated list is available for review.

(j) Combustion facility changes to meet 40 CFR 63 MACT standards. The following procedures apply to hazardous waste combustion facility permit modifications requested under Appendix I of Section R315-270-42, section L(9).

(1) Facility owners or operators shall have complied with the Notification of Intent to Comply (NIC) requirements of 40 CFR 63.1210 that were in effect prior to October 11, 2000, see 40 CFR part 63 Section 63.1200-63.1499 revised as of July 1, 2000, in order to request a permit modification under Section R315-270-42 for the purpose of technology changes needed to meet the standards under 40 CFR 63.1203, 63.1204, and 63.1205.

(2) Facility owners or operators shall comply with the Notification of Intent to Comply (NIC) requirements of 40 CFR 63.1210(b) and 63.1212(a) before a permit modification can be requested under Section R315-270-42 for the purpose of technology changes needed to meet the 40 CFR 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221 standards promulgated on October 12, 2005.

(3) If the Director does not approve or deny the request within 90 days of receiving it, the request shall be deemed approved. The Director may, at the Director's discretion, extend this 90 day deadline one time for up to 30 days by notifying the facility owner or operator.

(k) Waiver of permit conditions in support of transition to the 40 CFR 63 MACT standards.

(1) the permittee may request to have specific operating and emissions limits waived by submitting a Class 1 permit modification request under Appendix I of Section R315-270-42, section L(10). The permittee shall:

(i) Identify the specific RCRA permit operating and emissions limits that the permittee is requesting to waive;

(ii) Provide an explanation of why the changes are necessary in order to minimize or eliminate conflicts between the hazardous waste permit and MACT compliance; and

(iii) Discuss how the revised provisions will be sufficiently protective.

(iv) The Director shall approve or deny the request within 30 days of receipt of the request. The Director may, at the Director's discretion, extend this 30 day deadline one time for up to 30 days by notifying the facility owner or operator.

(2) To request this modification in conjunction with MACT performance testing where permit limits may only be waived during actual test events and pretesting, as defined under 40 CFR 63.1207(h)(2)(i) and (ii), for an aggregate time not to exceed 720 hours of operation, renewable at the discretion of the Director, the permittee shall:

(i) Submit a modification request to the Director at the time test plans are submitted to the Director; and

(ii) The Director may elect to approve or deny the request continent upon approval of the test plans.

Table

Appendix I to Section R315-270-42 -- Classification of Permit Modification

Modifications	Class
A. General Permit Provisions	
1. Administrative and informational changes	1
2. Correction of typographical errors	1
3. Equipment replacement or upgrading with functionally equivalent components, such as pipes, valves, pumps, conveyors, controls	1
4. Changes in the frequency of or procedures for monitoring, reporting, sampling, or maintenance activities by the permittee:	
a. To provide for more frequent monitoring, reporting, sampling, or maintenance	1
b. Other changes,	2
5. Schedule of compliance:	
a. Changes in interim compliance dates, with prior approval of the Director	[1]1
b. Extension of final compliance date	3
6. Changes in expiration date of permit to allow earlier permit termination, with prior approval of the Director	[1]1
7. Changes in ownership or operational control of a facility, provided the procedures of Subsection R315-270-40(b) are followed	[1]1

8. Changes to remove permit conditions that are no longer applicable, i.e., because the standards upon which they are based are no longer applicable to the facility. [1]1
9. Changes to remove permit conditions applicable to a unit excluded under Section R315-261-4. [1]1
10. Changes in the expiration date of a permit issued to a facility at which each unit is excluded under Section R315-261-4. [1]1

B. General Facility Standards

1. Changes to waste sampling or analysis methods
   a. To conform with agency guidance or rules 1
   b. To incorporate changes associated with F039, multi-source leachate, sampling or analysis methods 1
   c. To incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes [1]1
   d. Other changes 2
2. Changes to analytical quality assurance/control plan:
   a. To conform with agency guidance or rules 1
   b. Other changes 2
3. Changes in procedures for maintaining the operating record 1
4. Changes in frequency or content of inspection schedules 2
5. Changes in the training plan:
   a. That affect the type or decrease the amount of training given to employees 2
   b. Other changes 1
6. Contingency plan:
   a. Changes in emergency procedures, i.e., spill or release response procedures 2
   b. Replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed 1
   c. Removal of equipment from emergency equipment list 2
   d. Changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan 1
7. Construction quality assurance plan:
   a. Changes that the CQA officer certifies in the operating record will provide equivalent or better certainty that the unit components meet the design specifications 1
   b. Other changes 2

Note: If a permit modification, such as introduction of a new unit, requires a change in facility plans or other general facility standards, that change shall be reviewed under the procedures of the permit modification.

C. Ground-Water Protection

1. Changes to wells:
   a. Changes in the number, location, depth, or design of upgradient or downgradient wells of permitted ground-water monitoring system 2
   b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well 1
2. Changes in ground-water sampling or analysis procedures or monitoring schedule, with prior approval of the Director [1]1
3. Changes in statistical procedure for determining whether a statistically significant change in ground-water quality between upgradient and downgradient wells has occurred, with prior approval of the Director [1]1
4. Changes in point of compliance 2
5. Changes in indicator parameters, hazardous constituents, or concentration limits, including ACLs:
   a. As specified in the groundwater protection standard 3
   b. As specified in the detection monitoring program 2
6. Changes to a detection monitoring program as required by Subsection R315-264-98(h), unless otherwise specified in this appendix 2
7. Compliance monitoring program:
   a. Addition of compliance monitoring program as required by Sections R315-264-98(g)(4) and 3

R315-264-99
b. Changes to a compliance monitoring program as required by Subsection R315-264-99(j), unless otherwise specified in this appendix 2
8. Corrective action program:
a. Addition of a corrective action program as required by Subsection R315-264-99(h)(2) and Section R315-264-100 3
b. Changes to a corrective action program as required by Subsection R315-264-100(h), unless otherwise specified in this appendix 2
D. Closure
1. Changes to the closure plan:
a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Director [1]1
b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the Director [1]1
c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the Director [1]1
d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Director [1]1
e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this appendix 2
f. Extension of the closure period to allow a landfill, surface impoundment or land treatment unit to receive non-hazardous wastes after final receipt of hazardous wastes under Subsections R315-264-113(d) and R315-264-113(e) 2
2. Creation of a new landfill unit as part of closure 3
3. Addition of the following new units to be used temporarily for closure activities:
a. Surface impoundments 3
b. Incinerators 3
c. Waste piles that do not comply with Subsection R315-264-250(c) 3
d. Waste piles that comply with Subsection R315-264-250(c) 2
e. Tanks or containers, other than specified below 2
f. Tanks used for neutralization, dewatering, phase separation, or component separation, with prior approval of the Director [1]1
g. Staging piles 2
E. Post-Closure
1. Changes in name, address, or phone number of contact in post-closure plan 1
2. Extension of post-closure care period 2
3. Reduction in the post-closure care period 3
4. Changes to the expected year of final closure, where other permit conditions are not changed 1
5. Changes in post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure 2
F. Containers
1. Modification or addition of container units:
a. Resulting in greater than 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) below 3
b. Resulting in up to 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) below 2
c. Or treatment processes necessary to treat wastes that are restricted from land disposal to meet any of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in [1]1

Subsection R315-268-8(a)(2)(ii), with prior approval of the Director. This modification may also involve addition of new waste codes or narrative descriptions of wastes. It is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	
2.	
a. Modification of a container unit without increasing the capacity of the unit	2
b. Addition of a roof to a container unit without alteration of the containment system	1
3. Storage of different wastes in containers, except as provided in (F)(4) below:	
a. That require additional or different management practices from those authorized in the permit	3
b. That do not require additional or different management practices from those authorized in the permit	2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

4. Storage or treatment of different wastes in containers:	
a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet any of the applicable treatment standards, or that are to be treated to satisfy, in whole or in part, the standard of "use of practically available technology that yields the greatest environmental benefit." This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028)	[1]1
b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type, such as incinerator scrubber water. This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	[1]1
G. Tanks	
1.	
a. Modification or addition of tank units resulting in greater than 25% increase in the facility's tank capacity, except as provided in G(1)(c), G(1)(d), and G(1)(e) below	3
b. Modification or addition of tank units resulting in up to 25% increase in the facility's tank capacity, except as provided in G(1)(d) and G(1)(e) below	2
c. Addition of a new tank that will operate for more than 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation	2
d. After prior approval of the Director, addition of a new tank that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation	[1]1
e. Modification or addition of tank units or treatment processes necessary to treat wastes that are restricted from land disposal to meet any of the applicable treatment standards or to treat wastes to satisfy, in whole or in part, the standard of "use of practically available technology that yields the greatest environmental benefit," with prior approval of the Director. This modification may also involve addition of new waste codes. It is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028	[1]1
2. Modification of a tank unit or secondary	2

containment system without increasing the capacity of the unit

3. Replacement of a tank with a tank that meets the design standards and has a capacity within +/-10% of the replaced tank provided 1
   -The capacity difference is no more than 1500 gallons,
   -The facility's permitted tank capacity is not increased, and
   -The replacement tank meets the conditions in the permit.
4. Modification of a tank management practice 2
5. Management of different wastes in tanks:
   a. That require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the permit, except as provided in (G)(5)(c) below 3
   b. That do not require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process than authorized in the permit, except as provided in (G)(5)(d) 2
   c. That require addition of units or change in treatment processes or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet any of the applicable treatment standards or that are to be treated to satisfy, in whole or in part, the standard of "use of practically available technology that yields the greatest environmental benefit." The modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028 [1]1
   d. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type, such as incinerator scrubber water. This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028 1

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

H. Surface Impoundments

1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity 3
2. Replacement of a surface impoundment unit 3
3. Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and without modifying the unit's liner, leak detection system, or leachate collection system 2
4. Modification of a surface impoundment management practice 2
5. Treatment, storage, or disposal of different wastes in surface impoundments:
   a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit 3
   b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit 2
   c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit," and provided that the unit meets the minimum technological requirements stated in Subsection R315-268-5(h)(2). This 1

modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028

d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a unit that meets the minimum technological requirements stated in Subsection R315-268-5(h)(2), and provided further that the surface impoundment has previously received wastes of the same type, for example, incinerator scrubber water. This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028 — 1

6. Modifications of unconstructed units to comply with Subsections R315-264-221(c) and R315-264-226(d), and Sections R315-264-222, and R315-264-223 — [1]1

7. Changes in response action plan:

a. Increase in action leakage rate — 3

b. Change in a specific response reducing its frequency or effectiveness — 3

c. Other changes — 2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

I. Enclosed Waste Piles. For waste piles except those complying with Subsection R315-264-250(c), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with Subsection R315-264-250(c).

1. Modification or addition of waste pile units:

a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity — 3

b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity — 2

2. Modification of waste pile unit without increasing the capacity of the unit — 2

3. Replacement of a waste pile unit with another waste pile unit of the design and capacity and meeting each waste pile condition in the permit — 1

4. Modification of a waste pile management practice — 2

5. Storage or treatment of different wastes in waste piles:

a. That require additional or different management practices or different design of the unit — 3

b. That do not require additional or different management practices or different design of the unit — 2

6. Conversion of an enclosed waste pile to a containment building unit — 2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

J. Landfills and Unenclosed Waste Piles

1. Modification or addition of landfill units that result in increasing the facility's disposal capacity — 3

2. Replacement of a landfill — 3

3. Addition or modification of a liner, leachate collection system, leachate detection system, run-off control, or final cover system — 3

4. Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control, or final cover system — 2

5. Modification of a landfill management practice — 2

6. Landfill different wastes:

a. That require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system — 3

b. That do not require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system — 2

c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit," and provided that the landfill unit meets the minimum technological requirements stated in Subsection R315-268-5(h)(2). This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028 — 1

d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a landfill unit that meets the minimum technological requirements stated in Subsection R315-268-5(h)(2), and provided further that the landfill has previously received wastes of the same type, for example, incinerator ash. This modification is not applicable to dioxin-containing wastes, F020, 021, 022, 023, 026, 027, and 028 — 1

7. Modifications of unconstructed units to comply with Subsection R315-264-251(c), Sections R315-264-252 and R315-264-253, Subsections R315-264-254(c) and R315-264-301(c), Section R315-264-302, Subsection R315-264-303(c), and Section R315-264-304 — [1]1

8. Changes in response action plan:
   a. Increase in action leakage rate — 3
   b. Change in a specific response reducing its frequency or effectiveness — 3
   c. Other changes — 2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

K. Land Treatment

1. Lateral expansion of or other modification of a land treatment unit to increase areal extent — 3
2. Modification of run-on control system — 2
3. Modify run-off control system — 3
4. Other modifications of land treatment unit component specifications or standards required in permit — 2
5. Management of different wastes in land treatment units:
   a. That require a change in permit operating conditions or unit design specifications — 3
   b. That do not require a change in permit operating conditions or unit design specifications — 2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

6. Modification of a land treatment unit management practice to:
   a. Increase rate or change method of waste application — 3
   b. Decrease rate of waste application — 1
7. Modification of a land treatment unit management practice to change measures of pH or moisture content, or to enhance microbial or chemical reactions — 2
8. Modification of a land treatment unit management practice to grow food chain crops, to add to or replace existing permitted crops with different food chain crops, or to modify operating plans for distribution of animal feeds resulting from those crops — 3
9. Modification of operating practice due to detection of releases from the land treatment unit pursuant to Subsection R315-264-278(g)(2) — 3
10. Changes in the unsaturated zone monitoring system, resulting in a change to the location, depth, number of sampling points, or replace unsaturated zone monitoring devices or components of devices with devices or components that have specifications different from permit requirements — 3

11. Changes in the unsaturated zone monitoring system that do not result in a change to the location, depth, number of sampling points, or that replace unsaturated zone monitoring devices or components of devices with devices or components having specifications different from permit requirements	2
12. Changes in background values for hazardous constituents in soil and soil-pore liquid	2
13. Changes in sampling, analysis, or statistical procedure	2
14. Changes in land treatment demonstration program prior to or during the demonstration	2
15. Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met, and the Director's prior approval has been received	[1]1
16. Changes to allow a second land treatment demonstration to be conducted if the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and have received the prior approval of the Director	[1]1
17. Changes to allow a second land treatment demonstration to be conducted if the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, where the conditions for the second demonstration are not substantially the same as the conditions for the first demonstration	3
18. Changes in vegetative cover requirements for closure	2
L. Incinerators, Boilers, and Industrial Furnaces:	
1. Changes to increase by more than 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/ chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
2. Changes to increase by up to 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	2
3. Modification of an incinerator, boiler, or industrial furnace unit by changing the internal size or geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl/Cl_2, metals, or particulate from the combustion gases, or by changing other features of the incinerator, boiler, or industrial furnace that could affect its capability to meet the regulatory performance standards. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means	3
4. Modification of an incinerator, boiler, or industrial furnace unit in a manner that would not likely affect the capability of the unit to meet the regulatory performance standards but that would change the operating conditions or monitoring requirements specified in the permit. The Director may require a new trial burn to demonstrate compliance with the regulatory performance standards	2
5. Operating requirements:	

a. Modification of the limits specified in the permit for minimum or maximum combustion gas temperature, minimum combustion gas residence time, oxygen concentration in the secondary combustion chamber, flue gas carbon monoxide and hydrocarbon concentration, maximum temperature at the inlet to the particulate matter emission control system, or operating parameters for the air pollution control system. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means — 3

b. Modification of any stack gas emission limits specified in the permit, or modification of any conditions in the permit concerning emergency shutdown or automatic waste feed cutoff procedures or controls — 3

c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit — 2

6. Burning different wastes:

a. If the waste contains a POHC that is more difficult to burn than authorized by the permit or if burning of the waste requires compliance with different regulatory performance standards than specified in the permit. The Director shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means — 3

b. If the waste does not contain a POHC that is more difficult to burn than authorized by the permit and if burning of the waste does not require compliance with different regulatory performance standards than specified in the permit — 2

Note: See Subsection R315-270-42(g) for modification procedures to be used for the management of newly listed or identified wastes.

7. Shakedown and trial burn:

a. Modification of the trial burn plan or any of the permit conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period, or the period immediately following the trial burn — 2

b. Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operational readiness after construction, with the prior approval of the Director — [1]1

c. Changes in the operating requirements set in the permit for conducting a trial burn, provided the change is minor and has received the prior approval of the Director — [1]1

d. Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the Director — [1]1

8. Substitution of an alternative type of nonhazardous waste fuel that is not specified in the permit — 1

9. Technology changes needed to meet standards under 40 CFR part 63, Subpart EEE-National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors, provided the procedures of Subsection R315-270-42(j) are followed. — [1]1

10. Changes to RCRA permit provisions needed to support transition to 40 CFR part 63, Subpart EEE-National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors, provided the procedures of Subsection R315-270-42(k) are followed.

M. Containment Buildings.

1. Modification or addition of containment building units:	
a. Resulting in greater than 25% increase in the facility's containment building storage or treatment capacity	3
b. Resulting in up to 25% increase in the facility's containment building storage or treatment capacity	2
2. Modification of a containment building unit or secondary containment system without increasing the capacity of the unit	2
3. Replacement of a containment building with a containment building that meets the design standards provided:	
a. The unit capacity is not increased	1
b. The replacement containment building meets the conditions in the permit	1
4. Modification of a containment building management practice	2
5. Storage or treatment of different wastes in containment buildings:	
a. That require additional or different management practices	3
b. That do not require additional or different management practices	2
N. Corrective Action:	
1. Approval of a corrective action management unit pursuant to Section R315-264-552	3
2. Approval of a temporary unit or time extension for a temporary unit pursuant to Section R315-264-553	2
3. Approval of a staging pile or staging pile operating term extension pursuant to Section R315-264-554	2
O. Burden Reduction	
1. Reserved	
2. Development of one contingency plan based on Integrated Contingency Plan Guidance pursuant to Subsection R315-264-52(b)	1
3. Changes to recordkeeping and reporting requirements pursuant to: Subsections R315-264-56(i), R315-264-343(a)(2), R315-264-1061(b)(1),(d), R315-264-1062(a)(2), R315-264-196(f), R315-264-100(g), and R315-264-113(e)(5)	1
4. Changes to inspection frequency for tank systems pursuant to Subsection R315-264-195(b)	1
5. Changes to detection and compliance monitoring program pursuant to Subsections R315-264-98(d), (g)(2), and (g)(3), R315-264-99(f), and (g)	1

[1]Class 1 modifications requiring prior Agency approval.

R315-270-43. Hazardous Waste Permit Program -- Termination of Permits.

(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:

(1) Noncompliance by the permittee with any condition of the permit;

(2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or

(3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

(b) The Director shall follow the applicable procedures in Rule R315-124 in terminating any permit under Section R315-270-43.

R315-270-50. Hazardous Waste Permit Program -- Duration of Permits.

(a) Hazardous Waste operation permits shall be effective for a fixed term not to exceed 10 years.

(b) Except as provided in Section R315-270-51, the term of a permit shall not be extended by modification beyond the maximum duration specified in Section R315-270-50.

(c) The Director may issue any permit for a duration that is less than the full allowable term under Section R315-270-50.

(d) Each permit for a land disposal facility shall be reviewed by the Director five years after the date of permit issuance or reissuance and shall be modified as necessary, as provided in Section R315-270-41.

R315-270-51. Hazardous Waste Permit Program -- Continuation of Expiring Permits.

(a) The conditions of an expired permit continue in force until the effective date of a new permit if:

(1) The permittee has submitted a timely application under Section R315-270-14 and the applicable sections in Sections R315-270-15 through 29 which is a complete application for a new permit; and

(2) The Director through no fault of the permittee, does not issue a new permit with an effective date under Section R315-124-15 on or before the expiration date of the previous permit, for example, when issuance is impracticable due to time or resource constraints.

(b) Effect. Permits continued under Section R315-270-51 remain fully effective and enforceable.

(c) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit, the Director may choose to do any or all of the following:

(1) Initiate enforcement action based upon the permit which has been continued;

(2) Issue a notice of intent to deny the new permit under Section R315-124-6. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;

(3) Issue a new permit under Rule R315-124 with appropriate conditions; or

(4) Take other actions authorized by these rules.

(d) State continuation. If a permittee has submitted a timely and complete application under applicable State law and regulations, the terms and conditions of an EPA-issued RCRA permit continue in force beyond the expiration date of the permit, but only until the effective date of the State's issuance or denial of a State RCRA permit.

R315-270-60. Hazardous Waste Permit Program -- Permits by Rule.

The following shall be deemed to have an approved hazardous waste permit, regardless of any other provision of Section R315-270-60 or Rule R315-124, if the conditions listed are met:

(a) Reserved

(b) Injection wells. The owner or operator of an injection well disposing of hazardous waste, if the owner or operator:

(1) has a permit for underground injection issued under Rule R317-7 and 40 CFR 144 or 145; and

(2) complies with the conditions of that permit and the requirements of 40 CFR 144.14 and Section R317-7-11.

(3) For UIC permits issued after November 8, 1984:

(i) complies with Section R315-264-101; and

(ii) where the UIC well is the only unit at a facility that requires a hazardous waste permit, complies with Subsection R315-270-14(d).

(c) Publicly owned treatment works. The owner or operator of a POTW that accepts for treatment hazardous waste, if the owner or operator:

(1) has an NPDES permit;

(2) complies with the conditions of that permit; and

(3) complies with the following rules:

(i) Section R315-264-11, Identification number;

(ii) Section R315-264-71, Use of manifest system;

(iii) Section R315-264-72, Manifest discrepancies;

(iv) Subsections R315-264-73(a) and R315-264-73(b)(1), Operating record;

(v) Section R315-264-75, Biennial report;

(vi) Section R315-264-76, Unmanifested waste report; and

(vii) for NPDES permits issued after November 8, 1984, Section R315-264-101.

(4) If the waste meets the federal, state, and local pretreatment requirements that would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance.

R315-270-61. Hazardous Waste Permit Program -- Emergency Permits.

(a) Notwithstanding any other provision of Rule R315-270 or Rule R315-124, in the event the Director finds an imminent and substantial endangerment to human health or the environment the Director may issue a temporary emergency permit:

(1) To a non-permitted facility to allow treatment, storage, or disposal of hazardous waste; or

(2) To a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit.

(b) This emergency permit:

(1) May be oral or written. If oral, it shall be followed in five days by a written emergency permit;

(2) Shall not exceed 90 days in duration;

(3) Shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal;

(4) May be terminated by the Director at any time without process if the Director determines that termination is appropriate to protect human health and the environment;

(5) Shall be accompanied by a public notice published under Subsection R315-124-10(c)(3) including:

(i) Name and address of the office granting the emergency authorization;

(ii) Name and location of the permitted hazardous waste management facility;

(iii) A brief description of the wastes involved;

(iv) A brief description of the action authorized and reasons for authorizing it; and

(v) Duration of the emergency permit; and

(6) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of Rule R315-270 and Rules R315-264 and 266.

R315-270-62. Hazardous Waste Permit Program -- Hazardous Waste Incinerator Permits.

When an owner or operator of a hazardous waste incineration unit becomes subject to hazardous waste permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air

emission standards and limitations in Subsection R307-214-2(39), i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d), which are incorporated by reference in Subsection R307-214-2(39), documenting compliance with all applicable requirements of Subsection R307-214-2(39), the requirements of Section R315-270-62 do not apply, except those provisions the Director determines are necessary to ensure compliance with Subsections R315-264-345(a) and (c) if the owner or operator elects to comply with Section R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Director may apply the provisions of Section R315-270-62, on a case-by-case basis, for purposes of information collection in accordance with Subsections R315-270-10(k), 10(l), 32(b)(2), and 32(b)(3).

(a) For the purposes of determining operational readiness following completion of physical construction, the Director shall establish permit conditions, including but not limited to allowable waste feeds and operating conditions, in the permit to a new hazardous waste incinerator. These permit conditions shall be effective for the minimum time required to bring the incinerator to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time for treatment of hazardous waste. The Director may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to Section R315-270-42.

(1) Applicants shall submit a statement, with part B of the permit application, which suggests the conditions necessary to operate in compliance with the performance standards of Section R315-264-343 during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates and the operating parameters identified in Section R315-264-345.

(2) The Director shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of Section R315-264-343.

(b) For the purposes of determining feasibility of compliance with the performance standards of Section R315-264-343 and of determining adequate operating conditions under Section R315-264-345, the Director shall establish conditions in the permit for a new hazardous waste incinerator to be effective during the trial burn.

(1) Applicants shall propose a trial burn plan, prepared under Subsection R315-270-62(b)(2) with a part B of the permit application.

(2) The trial burn plan shall include the following information:

(i) An analysis of each waste or mixture of wastes to be burned which includes:

(A) Heat value of the waste in the form and composition in which it will be burned.

(B) Viscosity (if applicable), or description of the physical form of the waste.

(C) An identification of any hazardous organic constituents listed in Rule R315-261, appendix VIII, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Rule R315-261, appendix VIII, which would reasonably not be expected to be found in the waste. The constituents excluded from analysis shall be identified, and the basis for the exclusion stated. The waste analysis shall rely on appropriate analytical techniques.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.

(ii) A detailed engineering description of the incinerator for which the permit is sought including:

(A) Manufacturer's name and model number of incinerator, if available.

(B) Type of incinerator.

(C) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber.

(D) Description of the auxiliary fuel system, type/feed.

(E) Capacity of prime mover.

(F) Description of automatic waste feed cut-off system(s).

(G) Stack gas monitoring and pollution control equipment.

(H) Nozzle and burner design.

(I) Construction materials.

(J) Location and description of temperature, pressure, and flow indicating and control devices.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(iv) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the Director's decision under Subsection R315-270-62(b)(5).

(v) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator.

(vi) A description of, and planned operating conditions for, any emission control equipment which will be used.

(vii) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction.

(viii) Such other information as the Director reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of Subsection R315-270-62(b)(2) and the criteria in Subsection R315-270-62(b)(5).

(3) The Director, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of Subsection R315-270-62(b)(2).

(4) Based on the waste analysis data in the trial burn plan, the Director shall specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies shall be calculated during the trial burn. These trial POHCs shall be specified by the Director based on The Director's estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and, for wastes listed in Sections R315-261-30 through 35, the

hazardous waste organic constituent or constituents identified in appendix VII of Rule R315-261 as the basis for listing.

(5) The Director shall approve a trial burn plan if he finds that:

(i) The trial burn is likely to determine whether the incinerator performance standard required by Section R315-264-343 can be met;

(ii) The trial burn itself shall not present an imminent hazard to human health or the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under Section R315-264-345; and

(iv) The information sought in Subsection R315-270-62(b)(5)(i) and (ii) cannot reasonably be developed through other means.

(6) The Director shall send a notice to all persons on the facility mailing list as set forth in Subsection R315-124-10(c)(1)(ix) and to the appropriate units of State and local government as set forth in Subsection R315-124-10(c)(1)(x) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Director has issued such notice.

(i) This notice shall be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the permitting agency.

(ii) This notice shall contain:

(A) The name and telephone number of the applicant's contact person;

(B) The name and telephone number of the permitting agency's contact office;

(C) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

(D) An expected time period for commencement and completion of the trial burn.

(7) During each approved trial burn, or as soon after the burn as is practicable, the applicant shall make the following determinations:

(i) A quantitative analysis of the trial POHCs in the waste feed to the incinerator.

(ii) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHCs, oxygen (O2) and hydrogen chloride (HCl).

(iii) A quantitative analysis of the scrubber water, if any; ash residues; and other residues, for the purpose of estimating the fate of the trial POHCs.

(iv) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in Subsection R315-264-343(a).

(v) If the HCl emission rate exceeds 1.8 kilograms of HCl per hour, 4 pounds per hour, a computation of HCl removal efficiency in accordance with Subsection R315-264-343(b).

(vi) A computation of particulate emissions, in accordance with Subsection R315-264-343(c).

(vii) An identification of sources of fugitive emissions and their means of control.

(viii) A measurement of average, maximum, and minimum temperatures and combustion gas velocity.

(ix) A continuous measurement of carbon monoxide (CO) in the exhaust gas.

(x) Such other information as the Director may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in Section R315-264-343 and to establish the operating conditions required by Section R315-264-345 as necessary to meet that performance standard.

(8) The applicant shall submit to the Director a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and shall submit the results of all the determinations required in Subsection R315-270-62(b)(6). This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Director.

(9) All data collected during any trial burn shall be submitted to the Director following the completion of the trial burn.

(10) All submissions required by Subsection R315-270-62(b) shall be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under Section R315-270-11.

(11) Based on the results of the trial burn, the Director shall set the operating requirements in the final permit according to Section R315-264-345. The permit modification shall proceed according to Section R315-270-42.

(c) For the purposes of allowing operation of a new hazardous waste incinerator following completion of the trial burn and prior to final modification of the permit conditions to reflect the trial burn results, the Director may establish permit conditions, including but not limited to allowable waste feeds and operating conditions sufficient to meet the requirements of Section R315-264-345, in the permit to a new hazardous waste incinerator. These permit conditions shall be effective for the minimum time required to complete sample analysis, data computation and submission of the trial burn results by the applicant, and modification of the facility permit by the Director.

(1) Applicants shall submit a statement, with part B of the permit application, which identifies the conditions necessary to operate in compliance with the performance standards of Section R315-264-343 during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters in Section R315-264-345.

(2) The Director shall review this statement and any other relevant information submitted with part B of the permit application and specify those requirements for this period most likely to meet the performance standards of Section R315-264-34 based on his engineering judgment.

(d) For the purpose of determining feasibility of compliance with the performance standards of Section R315-264-343 and of determining adequate operating conditions under Section R315-264-345, the applicant for a permit for an existing hazardous waste incinerator shall prepare and submit a trial burn plan and perform a trial burn in accordance with Subsection R315-270-19(b) and Subsections R315-270-62(b)(2) through (b)(5) and (b)(7) through (b)(10) or, instead, submit other information as specified in Subsection R315-270-19(c). The Director shall announce the Director's intention to approve the trial burn plan in accordance with the timing and distribution requirements of Subsection R315-270-62(b)(6). The contents of the notice shall include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the permitting agency; the location where the trial burn

plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for approval of the plan and the time period during which the trial burn would be conducted. Applicants submitting information under Subsection R315-270-19(a) are exempt from compliance with Sections R315-264-343 and 345 and, therefore, are exempt from the requirement to conduct a trial burn. Applicants who submit trial burn plans and receive approval before submission of a permit application shall complete the trial burn and submit the results, specified in Subsection R315-270-62(b)(7), with part B of the permit application. If completion of this process conflicts with the date set for submission of the part B application, the applicant shall contact the Director to establish a later date for submission of the part B application or the trial burn results. Trial burn results shall be submitted prior to issuance of the permit. When the applicant submits a trial burn plan with part B of the permit application, the Director shall specify a time period prior to permit issuance in which the trial burn shall be conducted and the results submitted.

R315-270-63. Hazardous Waste Permit Program -- Permits for Land Treatment Demonstrations Using Field Test or Laboratory Analyses.

(a) For the purpose of allowing an owner or operator to meet the treatment demonstration requirements of Section R315-264-272, the Director may issue a treatment demonstration permit. The permit shall contain only those requirements necessary to meet the standards in Subsection R315-264-272(c). The permit may be issued either as a treatment or disposal permit covering only the field test or laboratory analyses, or as a two-phase facility permit covering the field tests, or laboratory analyses, and design, construction operation and maintenance of the land treatment unit.

(1) The Director may issue a two-phase facility permit if the Director finds that, based on information submitted in part B of the application, substantial, although incomplete or inconclusive, information already exists upon which to base the issuance of a facility permit.

(2) If the Director finds that not enough information exists upon which the Director can establish permit conditions to attempt to provide for compliance with all of the requirements of Sections R315-264-270 through 283, he shall issue a treatment demonstration permit covering only the field test or laboratory analyses.

(b) If the Director finds that a phased permit may be issued, the Director shall establish, as requirements in the first phase of the facility permit, conditions for conducting the field tests or laboratory analyses. These permit conditions shall include design and operating parameters, including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone; monitoring procedures; post-demonstration clean-up activities; and any other conditions which the Director finds may be necessary under Subsection R315-264-272(c). The Director shall include conditions in the second phase of the facility permit to attempt to meet all Sections R315-264-270 through 283 requirements pertaining to unit design, construction, operation, and maintenance. The Director shall establish these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the part B application.

(1) The first phase of the permit shall be effective as provided in Subsection R315-124-15(b).

(2) The second phase of the permit shall be effective as provided in Subsection R315-270-63(d).

(c) When the owner or operator who has been issued a two-phase permit has completed the treatment demonstration, the owner or operator shall submit to the Director a certification, signed by a person authorized to sign a permit application or report under Section R315-270-11, that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in phase one of the permit for conducting such tests or analyses. The owner or operator shall also submit all data collected during the field tests or laboratory analyses within 90 days of completion of those tests or analyses unless the Director approves a later date.

(d) If the Director determines that the results of the field tests or laboratory analyses meet the requirements of Section R315-264-272, the Director shall modify the second phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with Sections R315-264-270 through 283, based upon the results of the field tests or laboratory analyses.

(1) This permit modification may proceed under Section R315-270-42, or otherwise shall proceed as a modification under Subsection R315-270-41(a)(2). If such modifications are necessary, the second phase of the permit shall become effective only after those modifications have been made.

(2) If no modifications of the second phase of the permit are necessary, the Director shall give notice of the final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of the final decision on the second phase of the permit. The second phase of the permit then will become effective as specified in Subsection R315-124-15(b).

R315-270-65. Hazardous Waste Permit Program -- Research, Development, and Demonstration Permits.

(a) The Director may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under Rules R315-264 or 266. Any such permit shall include such terms and conditions as will assure protection of human health and the environment. Such permits:

(1) Shall provide for the construction of such facilities as necessary, and for operation of the facility for not longer than one year unless renewed as provided in Subsection R315-270-64(d), and

(2) Shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the Director deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment, and

(3) Shall include such requirements as the Director deems necessary to protect human health and the environment, including, but not limited to, requirements regarding monitoring, operation, financial responsibility, closure, and remedial action, and such requirements as the Director deems necessary regarding testing and providing of information to the Director with respect to the operation of the facility.

(b) For the purpose of expediting review and issuance of permits under Section R315-270-65, the Director may, consistent with

the protection of human health and the environment, modify or waive permit application and permit issuance requirements in Rules R315-124 and 270 except that there may be no modification or waiver of regulations regarding financial responsibility, including insurance, or of procedures regarding public participation.

(c) The Director may order an immediate termination of all operations at the facility at any time the Director determines that termination is necessary to protect human health and the environment.

(d) Any permit issued under Section R315-270-65 may be renewed not more than three times. Each such renewal shall be for a period of not more than 1 year.

R315-270-66. Hazardous Waste Permit Program -- Permits for Boilers and Industrial Furnaces Burning Hazardous Waste.

When an owner or operator of a cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to the hazardous waste permit requirements after October 12, 2005 or when an owner or operator of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in Subsection R307-214-2(39), i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d) which are incorporated by reference in R307-214-2(39) documenting compliance with all applicable requirements of Subsection R307-214-2(39), the requirements of Section R315-270-66 do not apply. The requirements of Section R315-270-66 do apply, however, if the Director determines certain provisions are necessary to ensure compliance with Subsections R315-266-102(e)(1) and 102(e)(2)(iii) if owners and operators elect to comply with Subsection R315-270-235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if you are an area source and elect to comply with the Sections R315-266-105, 106, and 107 standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals; or the Director determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with Subsections R315-270-10(k), 10(l), 32(b)(2), and 32(b)(3).

(a) General. Owners and operators of new boilers and industrial furnaces, those not operating under the interim status standards of Section R315-266-103, are subject to Subsections R315-270-66(b) through (f). Boilers and industrial furnaces operating under the interim status standards of Section R315-266-103 are subject to Subsection R315-270-66(g).

(b) Permit operating periods for new boilers and industrial furnaces. A permit for a new boiler or industrial furnace shall specify appropriate conditions for the following operating periods:

(1) Pretrial burn period. For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the boiler or industrial furnace to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time when burning hazardous waste, the Director shall establish in the Pretrial Burn Period of the permit conditions, including but not limited to, allowable hazardous waste feed rates and operating conditions. The Director may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to Section R315-270-42.

(i) Applicants shall submit a statement, with part B of the permit application that suggests the conditions necessary to operate in compliance with the standards of Sections R315-266-104 through 107 during this period. This statement should include, at a minimum, restrictions on the applicable operating requirements identified in Subsection R315-266-102(e).

(ii) The Director shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of Sections R315-266-104 through 107.

(2) Trial burn period. For the duration of the trial burn, the Director shall establish conditions in the permit for the purposes of determining feasibility of compliance with the performance standards of Sections R315-266-104 through 107 and determining adequate operating conditions under Subsection R315-266-102(e). Applicants shall propose a trial burn plan, prepared under Subsection R315-270-66(c), to be submitted with part B of the permit application.

(3) Post-trial burn period.

(i) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Director to reflect the trial burn results, the Director shall establish the operating requirements most likely to ensure compliance with the performance standards of Sections R315-266-104 through 107.

(ii) Applicants shall submit a statement, with part B of the application that identifies the conditions necessary to operate during this period in compliance with the performance standards of Sections R315-266-104 through 107. This statement should include, at a minimum, restrictions on the operating requirements provided by Subsection R315-266-102(e).

(iii) The Director shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of Sections R315-266-104 through 107.

(4) Final permit period. For the final period of operation, the Director shall develop operating requirements in conformance with Subsection R315-266-102(e) that reflect conditions in the trial burn plan and are likely to ensure compliance with the performance standards of Sections R315-266-104 through 107. Based on the trial burn results, the Director shall make any necessary modifications to the operating requirements to ensure compliance with the performance standards. The permit modification shall proceed according to Section R315-270-42.

(c) Requirements for trial burn plans. The trial burn plan shall include the following information. The Director, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of Subsections R315-270-66(c)(1) through (9):

(1) An analysis of each feed stream, including hazardous waste, other fuels, and industrial furnace feed stocks, as fired, that includes:

(i) Heating value, levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, total chlorine/chloride, and ash;

(ii) Viscosity or description of the physical form of the feed stream;

(2) An analysis of each hazardous waste, as fired, including:

(i) An identification of any hazardous organic constituents listed in appendix VIII, of Rule R315-261, that are present in the feed stream, except that the applicant need not analyze for constituents listed in appendix VIII that would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis shall be identified and the basis for this exclusion explained. The waste analysis shall be conducted in accordance with appropriate analytical techniques.

(ii) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by appropriate analytical methods.

(iii) A description of blending procedures, if applicable, prior to firing the hazardous waste, including a detailed analysis of the hazardous waste prior to blending, an analysis of the material with which the hazardous waste is blended, and blending ratios.

(3) A detailed engineering description of the boiler or industrial furnace, including:

(i) Manufacturer's name and model number of the boiler or industrial furnace;

(ii) Type of boiler or industrial furnace;

(iii) Maximum design capacity in appropriate units;

(iv) Description of the feed system for the hazardous waste, and, as appropriate, other fuels and industrial furnace feedstocks;

(v) Capacity of hazardous waste feed system;

(vi) Description of automatic hazardous waste feed cutoff system(s);

(vii) Description of any air pollution control system; and

(viii) Description of stack gas monitoring and any pollution control monitoring systems.

(4) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(5) A detailed test schedule for each hazardous waste for which the trial burn is planned, including date(s), duration, quantity of hazardous waste to be burned, and other factors relevant to the Director's decision under Subsection R315-270-66(b)(2).

(6) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate, and, as appropriate, the feed rates of other fuels and industrial furnace feedstocks, and any other relevant parameters that may affect the ability of the boiler or industrial furnace to meet the performance standards in Sections R315-266-104 through 107.

(7) A description of, and planned operating conditions for, any emission control equipment that will be used.

(8) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.

(9) Such other information as the Director reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of Section R315-270-66(c) and the criteria in Subsection R315-270-66(b)(2).

(d) Trial burn procedures.

(1) A trial burn shall be conducted to demonstrate conformance with the standards of Sections R315-266-104 through 107 under an approved trial burn plan.

(2) The Director shall approve a trial burn plan if the Director finds that:

(i) The trial burn is likely to determine whether the boiler or industrial furnace can meet the performance standards of Sections R315-266-104 through 107;

(ii) The trial burn itself shall not present an imminent hazard to human health and the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under Subsection R315-266-102(e); and

(iv) The information sought in the trial burn cannot reasonably be developed through other means.

(3) The Director shall send a notice to all persons on the facility mailing list as set forth in Subsection R315-124-10(c)(1)(ix) and to the appropriate units of State and local government as set forth in Subsection R315-124-10(c)(1)(x) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after the Director has issued such notice.

(i) This notice shall be mailed within a reasonable time period before the trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the Director.

(ii) This notice shall contain:

(A) The name and telephone number of applicant's contact person;

(B) The name and telephone number of the Division;

(C) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

(D) An expected time period for commencement and completion of the trial burn.

(4) The applicant shall submit to the Director a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and shall submit the results of all the determinations required in Subsection R315-270-66(c). This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Director.

(5) All data collected during any trial burn shall be submitted to the Director following completion of the trial burn.

(6) All submissions required by Subsection R315-270-66(d) shall be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under Section R315-270-11.

(e) Special procedures for DRE trial burns. When a DRE trial burn is required under Subsection R315-266-104(a), the Director shall specify, based on the hazardous waste analysis data and other information in the trial burn plan, as trial Principal Organic Hazardous Constituents (POHCs) those compounds for which destruction and removal efficiencies shall be calculated during the trial burn. These trial

POHCs shall be specified by the Director based on information including the Director's estimate of the difficulty of destroying the constituents identified in the hazardous waste analysis, their concentrations or mass in the hazardous waste feed, and, for hazardous waste containing or derived from wastes listed in Sections R315-261-30 through 35, the hazardous waste organic constituent(s) identified in Appendix VII of Rule R315-261 as the basis for listing.

(f) Determinations based on trial burn. During each approved trial burn, or as soon after the burn as is practicable, the applicant shall make the following determinations:

(1) A quantitative analysis of the levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, silver, and chlorine/chloride, in the feed streams; hazardous waste, other fuels, and industrial furnace feedstocks;

(2) When a DRE trial burn is required under Subsection R315-266-104(a):

(i) A quantitative analysis of the trial POHCs in the hazardous waste feed;

(ii) A quantitative analysis of the stack gas for the concentration and mass emissions of the trial POHCs; and

(iii) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in Subsection R315-266-104(a);

(3) When a trial burn for chlorinated dioxins and furans is required under Subsection R315-266-104(e), a quantitative analysis of the stack gas for the concentration and mass emission rate of the 2,3,7,8-chlorinated tetra-octa congeners of chlorinated dibenzo-p-dioxins and furans, and a computation showing conformance with the emission standard;

(4) When a trial burn for particulate matter, metals, or HCl/Cl2 is required under Section R315-266-105, or Subsections R315-266-106(c) or (d), or SubsectionsR315-266-107(b)(2) or (c), a quantitative analysis of the stack gas for the concentrations and mass emissions of particulate matter, metals, or hydrogen chloride (HCl) and chlorine (Cl2), and computations showing conformance with the applicable emission performance standards;

(5) When a trial burn for DRE, metals, or HCl/Cl2 is required under Subsections R315-266-104(a), 106(c) or (d), or 107(b)(2) or (c), a quantitative analysis of the scrubber water, if any); ash residues; other residues; and products for the purpose of estimating the fate of the trial POHCs, metals, and chlorine/chloride;

(6) An identification of sources of fugitive emissions and their means of control;

(7) A continuous measurement of carbon monoxide (CO), oxygen, and where required, hydrocarbons (HC), in the stack gas; and

(8) Such other information as the Director may specify as necessary to ensure that the trial burn shall determine compliance with the performance standards in Sections R315-266-104 through 107 and to establish the operating conditions required by Subsection R315-266-102(e) as necessary to meet those performance standards.

(g) Interim status boilers and industrial furnaces. For the purpose of determining feasibility of compliance with the performance standards of Sections R315-266-104 through 107 and of determining adequate operating conditions under Section R315-266-103, applicants owning or operating existing boilers or industrial furnaces operated under the interim status standards of Section R315-266-103 shall either prepare and submit a trial burn plan and perform a trial burn in accordance with the requirements of Section R315-270-66 or submit other information as specified in Subsection R315-270-22(a)(6). The Director shall announce the Director's intention to approve of the trial burn plan in accordance with the timing and distribution requirements of Subsection R315-270-66(d)(3). The contents of the notice shall include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the Division; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for Director approval of the plan and the time periods during which the trial burn would be conducted. Applicants who submit a trial burn plan and receive approval before submission of the part B permit application shall complete the trial burn and submit the results specified in Subsection R315-270-66(f) with the part B permit application. If completion of this process conflicts with the date set for submission of the part B application, the applicant shall contact the Director to establish a later date for submission of the part B application or the trial burn results. If the applicant submits a trial burn plan with part B of the permit application, the trial burn shall be conducted and the results submitted within a time period prior to permit issuance to be specified by the Director.

R315-270-68. Hazardous Waste Permit Program -- Remedial Action Plans (RAPs).

Remedial Action Plans (RAPs) are special forms of permits that are regulated under Sections R315-270-79 through 230.

R315-270-70. Hazardous Waste Permit Program -- Qualifying for Interim Status.

(a) Any person who owns or operates an "existing hazardous waste management facility" or a facility in existence on the effective date of statutory or regulatory amendments under the State or Federal Act that render the facility subject to the requirement to have a hazardous waste permit shall have interim status and shall be treated as having been issued a permit to the extent the owner or operator has:

(1) Complied with the requirements of section 3010(a) of RCRA pertaining to notification of hazardous waste activity or the notification requirements of Rules R315-260 through 266, 268 and 270.

Comment: Some existing facilities may not be required to file a notification under section 3010(a) of RCRA. These facilities may qualify for interim status by meeting Subsection R315-270-70(a)(2).

(2) Complied with the requirements of Section R315-270-10 governing submission of part A applications;

(b) Failure to qualify for interim status. If the Director has reason to believe upon examination of a part A application that it fails to meet the requirements of Section R315-270-13, the Director shall notify the owner or operator in writing of the apparent deficiency. Such notice shall specify the grounds for the Director's belief that the application is deficient. The owner or operator shall have 30 days from receipt to respond to such a notification and to explain or cure the alleged deficiency in the owner or operator's part A application. If, after such notification and opportunity for response, the Director determines that the application is deficient the Director may take appropriate enforcement action.

(c) Subsection R315-270-70(a) shall not apply to any facility which has been previously denied a hazardous waste permit or if authority to operate the facility under Federal or State authority has been previously terminated.

R315-270-71. Hazardous Waste Permit Program -- Operation During Interim Status.

(a) During the interim status period the facility shall not:

(1) Treat, store, or dispose of hazardous waste not specified in part A of the permit application;

(2) Employ processes not specified in part A of the permit application; or

(3) Exceed the design capacities specified in part A of the permit application.

(b) Interim status standards. During interim status, owners or operators shall comply with the interim status standards at Rule R315-265.

R315-270-72. Hazardous Waste Permit Program -- Changes During Interim Status.

(a) Except as provided in Subsection R315-270-72(b), the owner or operator of an interim status facility may make the following changes at the facility:

(1) Treatment, storage, or disposal of new hazardous wastes not previously identified in part A of the permit application and, in the case of newly listed or identified wastes, addition of the units being used to treat, store, or dispose of the hazardous wastes on the effective date of the listing or identification if the owner or operator submits a revised part A permit application prior to such treatment, storage, or disposal;

(2) Increases in the design capacity of processes used at the facility if the owner or operator submits a revised part A permit application prior to such a change, along with a justification explaining the need for the change, and the Director approves the changes because:

(i) There is a lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities, or

(ii) The change is necessary to comply with a Federal, State, or local requirement.

(3) Changes in the processes for the treatment, storage, or disposal of hazardous waste or addition of processes if the owner or operator submits a revised part A permit application prior to such change, along with a justification explaining the need for the change, and the Director approves the change because:

(i) The change is necessary to prevent a threat to human health and the environment because of an emergency situation, or

(ii) The change is necessary to comply with a Federal, State, or local requirement.

(4) Changes in the ownership or operational control of a facility if the new owner or operator submits a revised part A permit application no later than 90 days prior to the scheduled change. When a transfer of operational control of a facility occurs, the old owner or operator shall comply with the requirements of Sections R315-265-140 through 150, until the new owner or operator has demonstrated to the Director that the owner or operator is complying with the requirements of Sections R315-265-140 through 150. The new owner or operator shall demonstrate compliance with Sections R315-265-140 through 150 within six months of the date of the change in ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with Sections R315-265-140 through 150, the Director shall notify the old owner or operator in writing that he no longer needs to comply with Sections R315-265-140 through 150 as of the date of demonstration. All other interim status duties are transferred effective immediately upon the date of the change in ownership or operational control of the facility.

(5) Changes made in accordance with an interim status corrective action order issued under Subsection 19-6-105(d) or by EPA under section 3008(h) or other Federal authority, or by a court in a judicial action brought by EPA or by an authorized State. Changes under Subsection R315-270-72(a)(5) are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(6) Addition of newly regulated units for the treatment, storage, or disposal of hazardous waste if the owner or operator submits a revised part A permit application on or before the date on which the unit becomes subject to the new requirements.

(b) Except as specifically allowed under Subsection R315-270-72(b), changes listed under Subsection R315-270-72(a) may not be made if they amount to reconstruction of the hazardous waste management facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds 50 percent of the capital cost of a comparable entirely new hazardous waste management facility. If all other requirements are met, the following changes may be made even if they amount to a reconstruction:

(1) Changes made solely for the purposes of complying with the requirements of Section R315-265-193 for tanks and ancillary equipment.

(2) If necessary to comply with Federal, State, or local requirements, changes to an existing unit, changes solely involving tanks or containers, or addition of replacement surface impoundments that satisfy the standards of section 3004(o).

(3) Changes that are necessary to allow owners or operators to continue handling newly listed or identified hazardous wastes that have been treated, stored, or disposed of at the facility prior to the effective date of the rule establishing the new listing or identification.

(4) Changes during closure of a facility or of a unit within a facility made in accordance with an approved closure plan.

(5) Changes necessary to comply with an interim status corrective action order issued under Subsection 19-6-105(d), or by EPA under section 3008(h) or other Federal authority, or by a court in a judicial proceeding brought by EPA or an authorized State, provided that such changes are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(6) Changes to treat or store, in tanks, containers, or containment buildings, hazardous wastes subject to land disposal restrictions imposed by Rule R315-268 or RCRA section 3004, provided that such changes are made solely for the purpose of complying with Rule R315-268 or RCRA section 3004.

(7) Addition of newly regulated units under Subsection R315-27-72(a)(6).

(8) Changes necessary to comply with standards under 40 CFR part 63, Subpart EEE-National Emission Standards for Hazardous

Air Pollutants From Hazardous Waste Combustors, which is incorporated by reference in Subsection R307-214-2(39).

R315-270-73. Hazardous Waste Permit Program -- Termination of Interim Status.

Interim status terminates when:

(a) Final administrative disposition of a permit application, except an application for a remedial action plan (RAP) under Sections R315-270-79 through 230 is made.

(b) Interim status is terminated as provided in Subsection R315-270-10(e)(5).

(c) For owners or operators of each land disposal facility which has been granted interim status prior to November 8, 1984, on November 8, 1985, unless:

(1) The owner or operator submits a part B application for a permit for such facility prior to that date; and

(2) The owner or operator certifies that such facility is in compliance with all applicable ground-water monitoring and financial responsibility requirements.

(d) For owners or operators of each land disposal facility which is in existence on the effective date of statutory or regulatory amendments under the Federal Act, or Section 19-6-108, that render the facility subject to the requirement to have a hazardous waste permit and which is granted interim status, twelve months after the date on which the facility first becomes subject to such permit requirement unless the owner or operator of such facility:

(1) Submits a part B application for a hazardous waste permit for such facility before the date 12 months after the date on which the facility first becomes subject to such permit requirement; and

(2) Certifies that such facility is in compliance with all applicable ground water monitoring and financial responsibility requirements.

(e) For owners or operators of any land disposal unit that is granted authority to operate under Subsections R315-270-72(a) (1), (2) or (3), on the date 12 months after the effective date of such requirement, unless the owner or operator certifies that such unit is in compliance with all applicable ground-water monitoring and financial responsibility requirements.

(f) For owners and operators of each incinerator facility which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1989, unless the owner or operator of the facility submits a part B application for a hazardous waste permit for an incinerator facility by November 8, 1986.

(g) For owners or operators of any facility, other than a land disposal or an incinerator facility, which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1992, unless the owner or operator of the facility submits a part B application for a hazardous waste permit for the facility by November 8, 1988.

R315-270-79. Hazardous Waste Permit Program -- Why Sections R315-79 through 230 Written In A Special Format?

Sections R315-270-79 through 230 are written in a special format to make it easier to understand the regulatory requirements. Like other rules adopted the Board, this establishes enforceable legal requirements. For Sections R315-270-79 through 230, "I" and "you" refer to the owner/operator.

R315-270-80. Hazardous Waste Permit Program -- What is a RAP?

(a) A RAP is a special form of hazardous waste permit that you, as an owner or operator, may obtain, instead of a permit issued under Sections R315-270-3 through 66, to authorize you to treat, store, or dispose of hazardous remediation waste, as defined in Section R315-260-10, at a remediation waste management site. A RAP may only be issued for the area of contamination where the remediation wastes to be managed under the RAP originated, or areas in close proximity to the contaminated area, except as allowed in limited circumstances under Section R315-270-230.

(b) The requirements in Sections R315-270-3 through 66 do not apply to RAPs unless those requirements for traditional permits are specifically required under Sections R315-270-80 through 230. The definitions in Section R315-270-2 apply to RAPs.

(c) Notwithstanding any other provision of Rule R315-270 or Rule R315-124, any document that meets the requirements in Section R315-270-80 constitutes a hazardous waste permit Section 19-6-108.

(d) A RAP may be:

(1) A stand-alone document that includes only the information and conditions required by Sections R315-270-79 through 230; or

(2) Part, or parts, of another document that includes information and/or conditions for other activities at the remediation waste management site, in addition to the information and conditions required by Sections R315-270-79 through 230.

(e) If you are treating, storing, or disposing of hazardous remediation wastes as part of a cleanup compelled by Federal or State cleanup authorities, your RAP does not affect your obligations under those authorities in any way.

(f) If you receive a RAP at a facility operating under interim status, the RAP does not terminate your interim status.

R315-270-85. Hazardous Waste Permit Program -- When Do I Need a Rap?

(a) Whenever you treat, store, or dispose of hazardous remediation wastes in a manner that requires a permit under Section R315-270-1, you shall either obtain:

(1) A permit according to Sections R315-270-3 through 66; or

(2) A RAP according to Sections R315-270-79 through 230.

(b) Treatment units that use combustion of hazardous remediation wastes at a remediation waste management site are not eligible for RAPs under Sections R315-270-79 through 230.

(c) You may obtain a RAP for managing hazardous remediation waste at an already permitted hazardous waste facility. You shall have these RAPs approved as a modification to your existing permit according to the requirements of Section R315-270-41 or 42

instead of the requirements in Sections R315-270-79 through 230. When you submit an application for such a modification, however, the information requirements in Subsections R315-270-42(a)(1)(i), (b)(1)(iv), and (c)(1)(iv) do not apply; instead, you shall submit the information required under Section R315-270-110. When your permit is modified the RAP becomes part of the hazardous waste permit. Therefore when your permit, including the RAP portion, is modified, revoked and reissued, terminated or when it expires, it will be modified according to the applicable requirements in Sections R315-270-40 through 42, revoked and reissued according to the applicable requirements in Sections R315-270-41 and 43, terminated according to the applicable requirements in Section R315-270-43, and expire according to the applicable requirements in Sections R315-270-50 and 51.

R315-270-90. Hazardous Waste Permit Program -- Does My Rap Grant Me Any Rights or Relieve Me of Any Obligations?

The provisions of Section R315-270-4 apply to RAPs. Note: The provisions of Subsection R315-270-4(a) provide you assurance that, as long as you comply with your RAP, the Director shall consider you in compliance with the rules adopted under Sections 19-6-101 through 125, and will not take enforcement actions against you. However, you should be aware of four exceptions to this provision that are listed in Section R315-270-4.

R315-270-95. Hazardous Waste Permit Program -- How Do I Apply for a Rap?

To apply for a RAP, you shall complete an application, sign it, and submit it to the Director according to the requirements in Sections R315-270-79 through 230.

R315-270-100. Hazardous Waste Permit Program -- Who Shall Obtain a Rap?

When a facility or remediation waste management site is owned by one person, but the treatment, storage or disposal activities are operated by another person, it is the operator's duty to obtain a RAP, except that the owner shall also sign the RAP application.

R315-270-105. Hazardous Waste Permit Program -- Who Shall Sign the Application and Any Required Reports for a Rap?

Both the owner and the operator shall sign the RAP application and any required reports according to Subsections R315-270-11(a), (b), and (c). In the application, both the owner and the operator shall also make the certification required under Subsection R315-270-11(d)(1). However, the owner may choose the alternative certification under Subsection R315-270-11(d)(2) if the operator certifies under Subsection R315-270-11(d)(1).

R315-270-110. Hazardous Waste Permit Program -- What Shall I Include in My Application for a Rap?

You shall include the following information in your application for a RAP:

(a) The name, address, and EPA identification number of the remediation waste management site;

(b) The name, address, and telephone number of the owner and operator;

(c) The latitude and longitude of the site;

(d) The United States Geological Survey (USGS) or county map showing the location of the remediation waste management site;

(e) A scaled drawing of the remediation waste management site showing:

(1) The remediation waste management site boundaries;

(2) Any significant physical structures; and

(3) The boundary of all areas on-site where remediation waste is to be treated, stored or disposed;

(f) A specification of the hazardous remediation waste to be treated, stored or disposed of at the facility or remediation waste management site. This shall include information on:

(1) Constituent concentrations and other properties of the hazardous remediation wastes that may affect how such materials should be treated and/or otherwise managed;

(2) An estimate of the quantity of these wastes; and

(3) A description of the processes you will use to treat, store, or dispose of this waste including technologies, handling systems, design and operating parameters you will use to treat hazardous remediation wastes before disposing of them according to the LDR standards of Rule R315-268, as applicable;

(g) Enough information to demonstrate that operations that follow the provisions in your RAP application will ensure compliance with applicable requirements of Rules R315-264, 266, and 268;

(h) Such information as may be necessary to enable the Director to carry out his duties as is required for permits under Subsection R315-270-14(b)(20);

(i) Any other information the Director decides is necessary for demonstrating compliance with Sections R315-270-79 through 230 or for determining any additional RAP conditions that are necessary to protect human health and the environment.

R315-270-115. Hazardous Waste Permit Program -- What If I Want to Keep This Information Confidential?

Sections 63G-2-101 through 901 allows you to claim as confidential any or all of the information you submit to the Director under Sections R315-270-79 through 230. You shall assert any such claim by following the requirements of Section 63G-2-309. If you do assert a claim at the time you submit the information, the Director shall treat the information according to the procedures in Sections 63G-2-101 through 901. If you do not assert a claim at the time you submit the information, the Director may make the information available to the public without further notice to you. The Director shall deny any requests for confidentiality of your name and/or address.

R315-270-120. Hazardous Waste Permit Program -- To Whom Shall I Submit My Rap Application?

You shall submit your application for a RAP to the Director for approval.

R315-270-125. Hazardous Waste Permit Program -- If I Submit My Rap Application as Part of Another Document, What Shall I Do?

If you submit your application for a RAP as a part of another document, you shall clearly identify the components of that document that constitute your RAP application.

R315-270-130. Hazardous Waste Permit Program -- What Is the Process for Approving or Denying My Application for a Rap?

(a) If the Director tentatively finds that your RAP application includes all of the information required by Section R315-270-110 and that your proposed remediation waste management activities meet the regulatory standards, the Director shall make a tentative decision to approve your RAP application. The Director shall then prepare a draft RAP and provide an opportunity for public comment before making a final decision on your RAP application, according to Sections R315-270-79 through 230.

(b) If the Director tentatively finds that your RAP application does not include all of the information required by Section R315-270-110 or that your proposed remediation waste management activities do not meet the regulatory standards, the Director may request additional information from you or ask you to correct deficiencies in your application. If you fail or refuse to provide any additional information the Director requests, or to correct any deficiencies in your RAP application, the Director may make a tentative decision to deny your RAP application. After making this tentative decision, the Director shall prepare a notice of intent to deny your RAP application and provide an opportunity for public comment before making a final decision on your RAP application, according to the requirements in Sections R315-270-79 through 230. The Director may deny the RAP application either in its entirety or in part.

R315-270-135. Hazardous Waste Permit Program -- What Shall the Director Include in a Draft Rap?

If the Director prepares a draft RAP, it shall include the:

(a) Information required under Subsections R315-270-110(a) through (f);

(b) The following terms and conditions:

(1) Terms and conditions necessary to ensure that the operating requirements specified in your RAP comply with applicable requirements of Rules R315-264, 266, and 268, including any recordkeeping and reporting requirements. In satisfying this provision, the Director may incorporate, expressly or by reference, applicable requirements of Rules R315-264, 266, and 268 into the RAP or establish site-specific conditions as required or allowed by Rules R315-264, 266, and 268;

(2) Terms and conditions in Section R315-270-30;

(3) Terms and conditions for modifying, revoking and reissuing, and terminating your RAP, as provided in Section R315-270-170; and

(4) Any additional terms or conditions that the Director determines are necessary to protect human health and the environment, including any terms and conditions necessary to respond to spills and leaks during use of any units permitted under the RAP; and

(c) If the draft RAP is part of another document, as described in Subsection R315-270-80(d)(2), the Director shall clearly identify the components of that document that constitute the draft RAP.

R315-270-140. Hazardous Waste Permit Program -- What Else Shall the Director Prepare in Addition to the Draft Rap or Notice of Intent to Deny?

Once the Director has prepared the draft RAP or notice of intent to deny, he shall then:

(a) Prepare a statement of basis that briefly describes the derivation of the conditions of the draft RAP and the reasons for them, or the rationale for the notice of intent to deny;

(b) Compile an administrative record, including:

(1) The RAP application, and any supporting data furnished by the applicant;

(2) The draft RAP or notice of intent to deny;

(3) The statement of basis and all documents cited therein, material readily available at the Division's office or published material that is generally available need not be physically included with the rest of the record, as long as it is specifically referred to in the statement of basis; and

(4) Any other documents that support the decision to approve or deny the RAP; and

(c) Make information contained in the administrative record available for review by the public upon request.

R315-270-145. Hazardous Waste Permit Program -- What Are the Procedures for Public Comment on the Draft Rap or Notice of Intent to Deny?

(a) The Director shall:

(1) Send notice to you of intent to approve or deny your RAP application, and send you a copy of the statement of basis;

(2) Publish a notice of intent to approve or deny your RAP application in a major local newspaper of general circulation;

(3) Broadcast intent to approve or deny your RAP application over a local radio station; and

(4) Send a notice of intent to approve or deny your RAP application to each unit of local government having jurisdiction over the area in which your site is located, and to each State agency having any authority under State law with respect to any construction or operations at the site.

(b) The notice required by Subsection R315-270-145(a) shall provide an opportunity for the public to submit written comments on the draft RAP or notice of intent to deny within at least 45 days.

(c) The notice required by Subsection R315-270-145(a) shall include:

(1) The name and address of the office processing the RAP application;

(2) The name and address of the RAP applicant, and if different, the remediation waste management site or activity the RAP will regulate;

(3) A brief description of the activity the RAP will regulate;

(4) The name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft RAP or notice of intent to deny, statement of basis, and the RAP application;

(5) A brief description of the comment procedures, and any other procedures by which the public may participate in the RAP decision;

(6) If a hearing is scheduled, the date, time, location and purpose of the hearing;

(7) If a hearing is not scheduled, a statement of procedures to request a hearing;

(8) The location of the administrative record, and times when it will be open for public inspection; and

(9) Any additional information the Director considers necessary or proper.

(d) If, within the comment period, the Director receives written notice of opposition to his intention to approve or deny your RAP application and a request for a hearing, the Director shall hold an informal public hearing to discuss issues relating to the approval or denial of your RAP application. The Director may also determine on his own initiative that an informal hearing is appropriate. The hearing shall include an opportunity for any person to present written or oral comments. Whenever possible, the Director shall schedule this hearing at a location convenient to the nearest population center to the remediation waste management site and give notice according to the requirements in Subsection R315-270-145(a). This notice shall, at a minimum, include the information required by Subsection R315-270-145(c) and:

(1) Reference to the date of any previous public notices relating to the RAP application;

(2) The date, time and place of the hearing; and

(3) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

R315-270-150. Hazardous Waste Permit Program -- How Will the Director Make a Final Decision on My Rap Application?

(a) The Director shall consider and respond to any significant comments raised during the public comment period, or during any hearing on the draft RAP or notice of intent to deny, and revise your draft RAP based on those comments, as appropriate.

(b) If the Director determines that your RAP includes the information and terms and conditions required in Section R315-270-135, then he will issue a final decision approving your RAP and, in writing, notify you and all commenters on your draft RAP that your RAP application has been approved.

(c) If the Director determines that your RAP does not include the information required in Section R315-270-135, then he will issue a final decision denying your RAP and, in writing, notify you and all commenters on your draft RAP that your RAP application has been denied.

(d) If the Director's final decision is that the tentative decision to deny the RAP application was incorrect, he will withdraw the notice of intent to deny and proceed to prepare a draft RAP, according to the requirements in Sections R315-270-79 through 230.

(e) When the Director issues a final RAP decision, the Director shall refer to the procedures for appealing the decision under Section R315-270-155.

(f) Before issuing the final RAP decision, the Director shall compile an administrative record. Material readily available at the Division office or published materials which are generally available and which are included in the administrative record need not be physically included with the rest of the record as long as it is specifically referred to in the statement of basis or the response to comments. The administrative record for the final RAP shall include information in the administrative record for the draft RAP, see Subsection R315-270-140(b), and:

(1) All comments received during the public comment period;

(2) Tapes or transcripts of any hearings;

(3) Any written materials submitted at these hearings;

(4) The responses to comments;

(5) Any new material placed in the record since the draft RAP was issued;

(6) Any other documents supporting the RAP; and

(7) A copy of the final RAP.

(g) The Director shall make information contained in the administrative record available for review by the public upon request.

R315-270-155. Hazardous Waste Permit Program -- May the Decision to Approve or Deny My Rap Application Be Administratively Appealed?

(a) Any commenter on the draft RAP or notice of intent to deny, or any participant in any public hearing(s) on the draft RAP, may appeal the Director's decision to approve or deny your RAP application under Section R315-124-19. Any person who did not file comments, or did not participate in any public hearing(s) on the draft RAP, may petition for administrative review only to the extent of the changes from the draft to the final RAP decision. Appeals of RAPs may be made to the same extent as for final permit decisions under Section R315-124-15 (or a decision under Section R315-270-29 to deny a permit for the active life of a hazardous waste management facility or unit).

(b) This appeal is a prerequisite to seeking judicial review of these actions.

R315-270-160. Hazardous Waste Permit Program -- When Does My Rap Become Effective?

Your RAP becomes effective 30 days after the Director notifies you and all commenters that your RAP is approved unless:

(a) The Director specifies a later effective date in his decision;

(b) You or another person has appealed your RAP under R315-270-155 (if your RAP is appealed, and the request for review is granted under Section R315-270-155, conditions of your RAP are stayed according to Section R315-124-16 of this chapter); or

(c) No commenters requested a change in the draft RAP, in which case the RAP becomes effective immediately when it is issued.

R315-270-165. Hazardous Waste Permit Program -- When May I Begin Physical Construction of New Units Permitted Under the Rap?

You shall not begin physical construction of new units permitted under the RAP for treating, storing or disposing of hazardous remediation waste before receiving a finally effective RAP.

R315-270-170. Hazardous Waste Permit Program -- After My Rap Is Issued, How May it Be Modified, Revoked and Reissued, or Terminated?

In your RAP, the Director shall specify, either directly or by reference, procedures for future modifications, revocations and reissuance, or terminations of your RAP. These procedures shall provide adequate opportunities for public review and comment on any modification, revocation and reissuance, or termination that would significantly change your management of your remediation waste, or that otherwise merits public review and comment. If your RAP has been incorporated into a traditional hazardous waste permit, as allowed under Subsection R315-270-85(c), then the RAP will be modified according to the applicable requirements in Sections R315-270-40 through 42, revoked and reissued according to the applicable requirements in Sections R315-270-41 and 43, or terminated according to the applicable requirements of Section R315-270-43.

R315-270-175. Hazardous Waste Permit Program -- for What Reasons May the Director Choose to Modify My Final Rap?

(a) The Director may modify your final RAP on his own initiative only if one or more of the following reasons listed in Section R315-27-175 exist(s). If one or more of these reasons do not exist, then the Director shall not modify your final RAP, except at your request. Reasons for modification are:

(1) You made material and substantial alterations or additions to the activity that justify applying different conditions;

(2) The Director finds new information that was not available at the time of RAP issuance and would have justified applying different RAP conditions at the time of issuance;

(3) The standards or regulations on which the RAP was based have changed because of new or amended statutes, rules, or by judicial decision after the RAP was issued;

(4) If your RAP includes any schedules of compliance, the Director may find reasons to modify your compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which you as the owner/operator have little or no control and for which there is no reasonably available remedy;

(5) You are not in compliance with conditions of your RAP;

(6) You failed in the application or during the RAP issuance process to disclose fully all relevant facts, or you misrepresented any relevant facts at the time;

(7) The Director has determined that the activity authorized by your RAP endangers human health or the environment and can only be remedied by modifying; or

(8) You have notified the Director, as required in the RAP under Subsection R315-270-30(l)(3)) of a proposed transfer of a RAP.

(b) Notwithstanding any other provision in Section R315-270-175, when the Director reviews a RAP for a land disposal facility under Section R315-270-195, he may modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in Rules R315-124, 260 through 266 and 270.

(c) The Director shall not reevaluate the suitability of the facility location at the time of RAP modification unless new information or standards indicate that a threat to human health or the environment exists that was unknown when the RAP was issued.

R315-270-180. Hazardous Waste Permit Program -- for What Reasons May the Director Choose to Revoke and Reissue My Final Rap?

(a) The Director may revoke and reissue your final RAP on his own initiative only if one or more reasons for revocation and reissuance exist(s). If one or more reasons do not exist, then the Director shall not modify or revoke and reissue your final RAP, except at your request. Reasons for modification or revocation and reissuance are the same as the reasons listed for RAP modifications in Subsections R315-270-175(a)(5) through (8) if the Director determines that revocation and reissuance of your RAP is appropriate.

(b) The Director shall not reevaluate the suitability of the facility location at the time of RAP revocation and reissuance, unless new information or standards indicate that a threat to human health or the environment exists that was unknown when the RAP was issued.

R315-270-185. Hazardous Waste Permit Program -- for What Reasons May the Director Choose to Terminate My Final Rap, or Deny My Renewal Application?

The Director may terminate your final RAP on his own initiative, or deny your renewal application for the same reasons as those listed for RAP modifications in Subsections R315-270-175(a)(5) through (7) if the Director determines that termination of your RAP or denial of your RAP renewal application is appropriate.

R315-270-190. Hazardous Waste Permit Program -- May the Decision to Approve or Deny a Modification, Revocation and Reissuance, or Termination of My Rap Be Administratively Appealed?

(a) Any commenter on the modification, revocation and reissuance or termination, or any person who participated in any hearing(s) on these actions, may appeal the Director's decision to approve a modification, revocation and reissuance, or termination of your

RAP, according to Section R315-270-155. Any person who did not file comments or did not participate in any public hearing(s) on the modification, revocation and reissuance or termination, may petition for administrative review only of the changes from the draft to the final RAP decision.

(b) Any commenter on the modification, revocation and reissuance or termination, or any person who participated in any hearing(s) on these actions, may informally appeal the Director's decision to deny a request for modification, revocation and reissuance, or termination. Any person who did not file comments, or did not participate in any public hearing(s) on the modification, revocation and reissuance or termination may petition for administrative review only of the changes from the draft to the final RAP decision.

(c) The process for informal appeals of RAPs is found in Rule R305-7

R315-270-195. Hazardous Waste Permit Program -- When Will My RAP Expire?

RAPs shall be issued for a fixed term, not to exceed 10 years, although they may be renewed upon approval by the Director in fixed increments of no more than ten years. In addition, the Director shall review any RAP for hazardous waste land disposal five years after the date of issuance or reissuance and you or the Director shall follow the requirements for modifying your RAP as necessary to assure that you continue to comply with currently applicable requirements in Rules adopted under Section 19-6-101 through 125.

R315-270-200. Hazardous Waste Permit Program -- How May I Renew My RAP if it Is Expiring?

If you wish to renew your expiring RAP, you shall follow the process for application for and issuance of RAPs in Sections R315-270-79 through 230.

R315-270-205. Hazardous Waste Permit Program -- What Happens If I Have Applied Correctly for a Rap Renewal But Have Not Received Approval by the Time My Old Rap Expires?

If you have submitted a timely and complete application for a RAP renewal, but the Director, through no fault of yours, has not issued a new RAP with an effective date on or before the expiration date of your previous RAP, your previous RAP conditions continue in force until the effective date of your new RAP or RAP denial.

R315-270-210. Hazardous Waste Permit Program -- What Records Shall I Maintain Concerning My Rap?

You are required to keep records of:

(a) All data used to complete RAP applications and any supplemental information that you submit for a period of at least 3 years from the date the application is signed; and

(b) Any operating and/or other records the Director requires you to maintain as a condition of your RAP.

R315-270-215. Hazardous Waste Permit Program -- How Are Time Periods in the Requirements in Sections R315-27-79 through 230 and My Rap Computed?

(a) Any time period scheduled to begin on the occurrence of an act or event shall begin on the day after the act or event. For example, if your RAP specifies that you shall close a staging pile within 180 days after the operating term for that staging pile expires, and the operating term expires on June 1, then June 2 counts as day one of your 180 days, and you would have to complete closure by November 28.

(b) Any time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends on the day before the act or event. For example, if you are transferring ownership or operational control of your site, and wish to transfer your RAP, the new owner or operator shall submit a revised RAP application no later than 90 days before the scheduled change. Therefore, if you plan to change ownership on January 1, the new owner/operator shall submit the revised RAP application no later than October 3, so that the 90th day would be December 31.

(c) If the final day of any time period falls on a weekend or legal holiday, the time period shall be extended to the next working day. For example, if you wish to appeal the Director's decision to modify your RAP, then you shall file the appeal within 30 days after the Director has issued the final RAP decision. If the 30th day falls on Sunday, then you may submit your appeal by the Monday after. If the 30th day falls on July 4th, then you may submit your appeal by July 5th.

(d) Whenever a party or interested person has the right to or is required to act within a prescribed period after the service of notice or other paper upon him by mail, 3 days shall be added to the prescribed term. For example, if you wish to appeal the Director's decision to modify your RAP, then you shall file the appeal within 30 days after the Director has issued the final RAP decision. However, if the Director notifies you of his decision by mail, then you may have 33 days to file.

R315-270-220. Hazardous Waste Permit Program -- How May I Transfer My Rap to a New Owner or Operator?

(a) If you wish to transfer your RAP to a new owner or operator, you shall follow the requirements specified in your RAP for RAP modification to identify the new owner or operator, and incorporate any other necessary requirements. These modifications do not constitute "significant" modifications for purposes of Section R315-270-170. The new owner/operator shall submit a revised RAP application no later than 90 days before the scheduled change along with a written agreement containing a specific date for transfer of RAP responsibility between you and the new permittees.

(b) When a transfer of ownership or operational control occurs, you as the old owner or operator shall comply with the applicable requirements in Section R315-264-140 through 151 until the new owner or operator has demonstrated that he is complying with the requirements in Section R315-264-140 through 151. The new owner or operator shall demonstrate compliance with Section R315-264-140 through 151 within six months of the date of the change in ownership or operational control of the facility or remediation waste management site. When the new owner/operator demonstrates compliance with Section R315-264-140 through 151 to the Director, the

Director shall notify you that you no longer need to comply with Section R315-264-140 through 151 as of the date of demonstration.

R315-270-230. Hazardous Waste Permit Program -- May I Perform Remediation Waste Management Activities Under a Rap at a Location Removed From the Area Where the Remediation Wastes Originated?

(a) You may request a RAP for remediation waste management activities at a location removed from the area where the remediation wastes originated if you believe such a location would be more protective than the contaminated area or areas in close proximity.

(b) If the Director determines that an alternative location, removed from the area where the remediation waste originated, is more protective than managing remediation waste at the area of contamination or areas in close proximity, then the Director may approve a RAP for this alternative location.

(c) You shall request the RAP, and the Director shall approve or deny the RAP, according to the procedures and requirements in Sections R315-270-79 through 230.

(d) A RAP for an alternative location shall also meet the following requirements, which the Director shall include in the RAP for such locations:

(1) The RAP for the alternative location shall be issued to the person responsible for the cleanup from which the remediation wastes originated;

(2) The RAP is subject to the expanded public participation requirements in Sections R315-124-31, 32, and 33;

(3) The RAP is subject to the public notice requirements in Subsection R315-124-10(c);

(4) The site permitted in the RAP may not be located within 61 meters or 200 feet of a fault which has had displacement in the Holocene time, you shall demonstrate compliance with this standard through the requirements in Subsection R315-270-14(b)(11), See definitions of terms in Subsection R315-264-18(a);

(e) These alternative locations are remediation waste management sites, and retain the following benefits of remediation waste management sites:

(1) Exclusion from facility-wide corrective action under Section R315-264-101; and

(2) Application of Subsection R315-264-1(j) in lieu of Sections R315-264-10 through 56.

R315-270-235. Hazardous Waste Permit Program -- Integration with Maximum Achievable Control Technology (MACT) Standards -- Options For Incinerators, Cement Kilns, Lightweight Aggregate Kilns, Solid Fuel Boilers, Liquid Fuel Boilers and Hydrochloric Acid Production Furnaces to Minimize Emissions From Startup, Shutdown, and Malfunction Events.

(a) Facilities with existing permits

(1) Revisions to permit conditions after documenting compliance with MACT. The owner or operator of a hazardous waste-permitted incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace may request that the Director address permit conditions that minimize emissions from startup, shutdown, and malfunction events under any of the following options when requesting removal of permit conditions that are no longer applicable according to Subsections R315-264-340(b) and R315-266-100(b):

(i) Retain relevant permit conditions. Under this option, the Director shall:

(A) Retain permit conditions that address releases during startup, shutdown, and malfunction events, including releases from emergency safety vents, as these events are defined in the facility's startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-214-2(39); and

(B) Limit applicability of those permit conditions only to when the facility is operating under its startup, shutdown, and malfunction plan.

(ii) Revise relevant permit conditions.

(A) Under this option, the Director shall:

(I) Identify a subset of relevant existing permit requirements, or develop alternative permit requirements, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history.

(II) Retain or add these permit requirements to the permit to apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) Changes that may significantly increase emissions.

(I) You shall notify the Director in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You shall notify the Director of such changes within five days of making such changes. You shall identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

(II) The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(IIi) Upon permit renewal, or, if warranted;

(IIii) By modifying the permit under Subsection R315-270-41(a) or Section R315-270-42.

(iii) Remove permit conditions. Under this option:

(A) The owner or operator shall document that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-214-2(39), has been approved by the Director of the Division of Air Quality under 40 CFR 63.1206(c)(2)(ii)(B), which is incorporated by reference in Subsection R307-214-2(39); and

(B) The Director shall remove permit conditions that are no longer applicable according to Subsections R315-264-340(b) and R315-266-100(b).

(2) Addressing permit conditions upon permit reissuance. The owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that has conducted a comprehensive performance test and submitted to the Director of the Division of Air Quality a Notification of Compliance documenting compliance with the standards of Subsection R315-214-2(39), which adopts 40 CDR 63 subpart EEE by reference, may request in the application to reissue the permit for the combustion unit that the Director control emissions from startup, shutdown, and malfunction events under any of the following options:

(i) RCRA option A.

(A) Under this option, the Director shall:

(I) Include, in the permit, conditions that ensure compliance with Subsections R315-264-345(a) and 345(c) or Subsections R315-266-102(e)(1) and 102(e)(2)(iii) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, including releases from emergency safety vents; and

(II) Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan; or

(ii) RCRA option B.

(A) Under this option, the Director shall:

(I) Include, in the permit conditions, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history; and

(II) Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) Changes that may significantly increase emissions.

(I) You shall notify the Director in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You shall notify the Director of such changes within five days of making such changes. You shall identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

(II) The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(IIi) Upon permit renewal, or, if warranted;

(IIii) By modifying the permit under Subsection R315-270-41(a) or Section R315-270-42; or

(iii) CAA option. Under this option:

(A) The owner or operator shall document that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-214-2(39), has been approved by the Director of the Division of Air Quality under 40 CFR 63.1206(c)(2)(ii)(B), which is incorporated by reference in Subsection R307-214-2(39); and

(B) The Director shall omit from the permit conditions that are not applicable under Subsections R315-264-340(b) and R315-266-100(b).

(b) Interim status facilities

(1) Interim status operations. In compliance with Section R315-265-340 and Subsection R315-266-100(b), the owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of Rule R315-265 or 266 may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after conducting a comprehensive performance test and submitting to the Director of the Division of Air Quality a Notification of Compliance documenting compliance with the standards of Subsection R307-214-2(39), which adopts 40 CFR 63 subpart EEE by reference.

(i) RCRA option. Under this option, the owner or operator continues to comply with the interim status emission standards and operating requirements of Rules R315-265 or 266 relevant to control of emissions from startup, shutdown, and malfunction events. Those standards and requirements apply only during startup, shutdown, and malfunction events; or

(ii) CAA option. Under this option, the owner or operator is exempt from the interim status standards of Rules R315-265 or 266 relevant to control of emissions of toxic compounds during startup, shutdown, and malfunction events upon submission of written notification and documentation to the Director that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-214-2(39), has been approved by the Director of the Division of Air Quality under 40 CFR 63.1206(c)(2)(ii)(B), which is incorporated by reference in Subsection R307-214-2(39).

(2) Operations under a subsequent RCRA permit. When an owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of Rules R315-265 or 266 submits a RCRA permit application, the owner or operator may request that the Director control emissions from startup, shutdown, and malfunction events under any of the options provided by Subsection R315-270-235(a)(2)(i), (a)(2)(ii), or (a)(2)(iii).

(c) New units. Hazardous waste incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace units that become subject to hazardous waste permit requirements after October 12, 2005 shall control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options:

(1) Comply with the requirements specified in 40 CFR 63.1206(c)(2), which is incorporated by reference in Subsection R307-

214-2(39); or

(2) Request to include in the hazardous waste permit, conditions that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan and design. The Director shall specify that these permit conditions apply only when the facility is operating under its startup, shutdown, and malfunction plan.

KEY: hazardous waste
Date of Last Change: January 13, 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF FIVE-YEAR REVIEW AND STATEMENT OF CONTINUATION		
Rule number:	**R315-273**	**Filing ID: OFFICE USE ONLY**
Effective date:	**OFFICE USE ONLY**	

Agency Information

1. Title catchline:	Environmental Quality, Division of Waste Management and Radiation Control	
Building:	Multiagency State Office Building	
Street address:	195 N. 1950 W.	
City, state:	Salt Lake City, Utah	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, Utah 84114-4880	
Contact persons:		
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Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule catchline:	
R315-273. Standards for Universal Waste Management	
3. Statutory provisions that authorize or require this rule and an explanation of those particular statutory provisions:	
Section 19-6-105	Allows the Board to make rules identifying wastes that are determined to be hazardous and to make rules governing generators and transporters of hazardous wastes and owners and operators of hazardous waste treatment, storage, and disposal facilities.
Section 19-6-106	Section 19-6-106 prohibits the Waste Management and Radiation Control Board from making rules that are more stringent than the corresponding federal regulations unless the Board makes a written finding that corresponding federal regulations are not adequate to protect public health and the environment of the state. This section also allows the Board to incorporate by reference corresponding federal regulations.
4. A summary of written comments received during and since the last five-year review of this rule from interested persons supporting or opposing this rule:	
No comments have been received since the last five-year review of this rule.	
5. A reasoned justification for continuation of this rule, including reasons why the agency disagrees with comments in opposition to this rule, if any:	
Rule R315-273 provides an alternative set of management standards that generators of hazardous waste can use to manage certain types of hazardous waste in lieu of managing them in accordance with the hazardous waste management requirements found in R315-260 through 266, 268 and 270. These standards are required to meet the requirements of federal law related to solid and hazardous wastes to ensure that the solid and hazardous wastes program of the State of Utah is qualified to assume primacy from the federal government in control over solid and hazardous waste and thus this rule should be continued.	

Agency Authorization Information

To the agency: Information requested on this form is required by Section 63G-3-305. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin*.			
Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	Click or tap to enter a date.
Reminder: Text changes cannot be made with this type of rule filing. To change any text, please file an amendment or a nonsubstantive change.			

R315-273-1. Standards for Universal Waste Management -- Scope.

(a) Rule R315-273 establishes requirements for managing the following:

(1) batteries as described in Section R315-273-2;

(2) pesticides as described in Section R315-273-3;

(3) mercury-containing equipment as described in Section R315-273-4;

(4) lamps as described in Section R315-273-5;

(5) aerosol cans as described in Section R315-273-6; and

(6) antifreeze as described in Section R315-273-7.

(b) Rule R315-273 provides an alternative set of management standards in lieu of regulation under Rules R315-260 through R315-266, R315-268, and R315-270. If a waste handler chooses to manage its universal waste under the Rule R315-273, but fails to meet requirements in this rule, the waste handler remains subject to, and shall comply with, the applicable requirements of Rules R315-260 through R315-266, R315-268, R315-270 and R315-124.

Note: Only wastes that are hazardous, meaning wastes that are listed or exhibit one or more characteristics of hazardous waste, are subject to the Rule R315-273 universal waste rules. Compliance with the reduced set of Rule R315-273 requirements is an option that waste handlers may choose for managing their universal wastes, batteries, pesticides, mercury-containing devices, aerosol cans, lamps, and antifreeze. If universal waste handlers wish, they may instead continue to manage these hazardous wastes under the full hazardous waste rules for generators, transporters, and treatment, storage, and disposal facilities.

R315-273-2. Standards for Universal Waste Management -- Applicability-Batteries.

(a) Batteries covered under Section R315-273.

(1) The requirements of Rule R315-273 apply to persons managing batteries, as described in Section R315-273-9, except those listed in Section R315-273-2(b).

(2) Spent lead-acid batteries which are not managed under Section R315-266-80 are subject to management under Rule R315-273.

(b) Batteries not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following batteries:

(1) Spent lead-acid batteries that are managed under Section R315-266-80.

(2) Batteries, as described in Section R315-273-9, that are not yet wastes under Rule R315-261, including those that do not meet the criteria for waste generation in Subsection R315-273-2(c).

(3) Batteries, as described in Section R315-273-9 that are not hazardous waste. A battery is a hazardous waste if it exhibits one or more of the characteristics identified in Sections R315-261-20 through 24.

(c) Generation of waste batteries.

(1) A used battery becomes a waste on the date it is discarded, e.g., when sent for reclamation.

(2) An unused battery becomes a waste on the date the handler decides to discard it.

R315-273-3. Standards for Universal Waste Management -- Applicability-Pesticides.

(a) Pesticides covered under Rule R315-273. The requirements of Rule R315-273 apply to persons managing pesticides, as described in Section R315-273-9, meeting the following conditions, except those listed in Subsection R315-273-3(b):

(1) recalled pesticides that are:

(i) stocks of a suspended and cancelled pesticide that are part of a voluntary or mandatory recall under FIFRA Section 19(b), including those owned by the registrant responsible for conducting the recall; or

(ii) stocks of a suspended or cancelled pesticide, or a pesticide that is not in compliance with FIFRA, that are part of a voluntary recall by the registrant.

(2) stocks of other unused pesticide products that are collected and managed as part of a waste pesticide collection program.

(b) Pesticides not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following pesticides:

(1) recalled pesticides described in Subsection R315-273-3(a)(1), and unused pesticide products described in Subsection R315-273-3(a)(2), that are managed by farmers in compliance with Section R315-262-70. Section R315-262-70 addresses pesticides disposed of on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label, providing the container is triple rinsed in accordance with Subsection R315-261-7(b)(3);

(2) pesticides not meeting the conditions set forth in Subsection R315-273-3(a). These pesticides shall be managed in compliance with the hazardous waste rules in Rules R315-260 through R315-266, R315-268, and R315-270, except that aerosol cans as defined in Section R315-273-9 that contain pesticides may be managed as aerosol can universal waste in accordance with Subsections R315-273-13(f) or R315-273-33(f);

(3) pesticides that are not wastes under Rule R315-261, including those that do not meet the criteria for waste generation in Subsection R315-273-3(c) or those that are not wastes as described in Subsection R315-273-3(d); and

(4) pesticides that are not hazardous waste. A pesticide is a hazardous waste if it is listed in Sections R315-261-30 through R315-261-35 or if it exhibits one or more of the characteristics identified in Sections R315-261-20 through R315-261-24.

(c) When a pesticide becomes a waste.

(1) A recalled pesticide described in Subsection R315-273-3(a)(1) becomes a waste on the first date on which both of the following conditions apply:

(i) the generator of the recalled pesticide agrees to participate in the recall; and

(ii) the person conducting the recall decides to discard, for example, burn the pesticide for energy recovery.

(2) An unused pesticide product described in Subsection R315-273-3(a)(2) becomes a waste on the date the generator decides to discard it.

(d) Pesticides that are not wastes. The following pesticides are not wastes:

(1) Recalled pesticides described in Subsection R315-273-3(a)(1), if the person conducting the recall:

(i) Has not made a decision to discard, for example, burn for energy recovery, the pesticide. Until such a decision is made, the pesticide does not meet the definition of solid waste under Section R315-261-2; thus the pesticide is not a hazardous waste and is not subject to hazardous waste requirements, including Rule R315-273. This pesticide remains subject to the requirements of FIFRA; or

(ii) Has made a decision to use a management option that, under Section R315-261-2, does not cause the pesticide to be a solid waste; that is, the selected option is use, other than use constituting disposal, or reuse, other than burning for energy recovery, or reclamation. Such a pesticide is not a solid waste and therefore is not a hazardous waste, and is not subject to the hazardous waste requirements including Rule R315-273. This pesticide, including a recalled pesticide that is exported to a foreign destination for use or reuse, remains subject to the requirements of FIFRA.

(2) unused pesticide products described in Subsection R315-273-3(a)(2), if the generator of the unused pesticide product has not decided to discard, for example, burn for energy recovery, them. These pesticides remain subject to the requirements of FIFRA.

R315-273-4. Standards for Universal Waste Management -- Applicability -- Mercury-Containing Equipment.

(a) Mercury-containing equipment covered under Rule R315-273. The requirements of Rule R315-273 apply to persons managing mercury-containing equipment, as described in Section R315-273-9, except those listed in Subsection R315-273-4(b).

(b) Mercury-containing equipment not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following mercury-containing equipment:

(1) Mercury-containing equipment that is not yet a waste under Rule R315-261. Subsection R315-273-4(c) describes when mercury-containing equipment becomes a waste;

(2) Mercury-containing equipment that is not a hazardous waste. Mercury-containing equipment is a hazardous waste if it exhibits one or more of the characteristics identified in Sections R315-261-20 through 24 or is listed in Sections R315-261-30 through 35; and

(3) Equipment and devices from which the mercury-containing components have been removed.

(c) Generation of waste mercury-containing equipment.

(1) Used mercury-containing equipment becomes a waste on the date it is discarded.

(2) Unused mercury-containing equipment becomes a waste on the date the handler decides to discard it.

R315-273-5. Standards for Universal Waste Management -- Applicability-Lamps.

(a) Lamps covered under Rule R315-273. The requirements of Rule R315-273 apply to persons managing lamps as described in Section R315-273-9, except those listed in Subsection R315-273-5(b).

(b) Lamps not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following lamps:

(1) Lamps that are not yet wastes under Rule R315-261 as provided in Subsection R315-273-5(c).

(2) Lamps that are not hazardous waste. A lamp is a hazardous waste if it exhibits one or more of the characteristics identified in Sections R315-261-20 through 24.

(c) Generation of waste lamps.

(1) A used lamp becomes a waste on the date it is discarded, e.g., sent for reclamation.

(2) An unused lamp becomes a waste on the date the handler decides to discard it.

R315-273-6. Standards for Universal Waste Management -- Applicability-Aerosol Cans.

(a) Aerosol cans covered under Rule R315-273. The requirements of Rule R315-273 apply to persons managing aerosol cans, as described in Section R315-273-9, except those listed in Subsection R315-273-6(b).

(b) Aerosol cans not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following types of aerosol cans:

(1) Aerosol cans that are not yet waste under Rule R315-261. Subsection R315-273-6(c) describes when an aerosol can becomes a waste.

(2) Aerosol cans that are not hazardous waste. An aerosol can is a hazardous waste if the aerosol can exhibits one or more of the characteristics identified in Sections R315-261-20 through R315-261-24 or the aerosol can contains a substance that is listed in Sections R315-261-30 through R315-261-35.

(3) Aerosol cans that meet the standard for empty containers under Section R315-261-7.

(c) Generation of waste aerosol cans.

(1) A used aerosol can becomes a waste on the date it is discarded.

(2) An unused aerosol can becomes a waste on the date the handler decides to discard it.

R315-273-7. Standards for Universal Waste Management -- Applicability for Utah Specific Wastes.

(a) Antifreeze.

(1) The requirements of Rule R315-273 apply to persons managing antifreeze, as described in Section R315-273-9, except those listed in Subsection R315-273-6(a)(2).

(2) Antifreeze not covered under Rule R315-273. The requirements of Rule R315-273 do not apply to persons managing the following antifreeze:

(i) antifreeze, as described in Section R315-273-9,that is not yet a waste under Rule R315-261, including antifreeze that does not meet the criteria for waste generation in Subsection R315-273-6(a)(4);

(ii) antifreeze, as described in Section R315-273-9 that is not hazardous waste. Antifreeze is a hazardous waste if it exhibits one or more of the characteristics identified in Sections R315-261-20 through R315-261-24.

(3) Generation of waste antifreeze.

(i) Antifreeze becomes a waste on the date it is discarded, for example, when sent for reclamation.

(ii) Antifreeze becomes a waste on the date the handler decides to discard it.

R315-273-8. Standards for Universal Waste Management -- Applicability -- Household and Very Small Quantity Generator Waste.

(a) Persons managing the wastes listed below may, at their option, manage them under the requirements of Rule R315-273:

(1) Household wastes that are exempt under Subsection R315-261-4(b)(1) and are also of the same type as the universal wastes defined at Section R315-273-9; and/or

(2) Very small quantity generator wastes that are exempt under Section R315-262-14 and are also of the same type as the universal wastes defined at Section R315-273-9.

(b) Persons who commingle the wastes described in Subsections R315-273-8(a)(1) and (a)(2) together with universal waste regulated under Rule R315-273 shall manage the commingled waste under the requirements of Rule R315-273.

R315-273-9. Standards for Universal Waste Management -- Definitions.

(a) "Aerosol can" means a non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

(b) "Ampule" means an air-tight vial made of glass, plastic, metal, or any combination of these materials.

(c) "Antifreeze" means ethylene glycol or propylene glycol including aggregated batches of ethylene glycol or propylene glycol used as a heat transfer medium in an internal combustion engine; heating, ventilating, and air conditioning units; and electronics cooling applications; or used for winterizing equipment.

(d) "Battery" means a device consisting of one or more electrically connected electrochemical cells, which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections, electrical and mechanical, as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

(e) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in Subsections R315-273-13(a) and R315-273-13(c) and Subsections R315-273-33(a) and R315-273-33(c). A facility, at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

(f) "Drum-top lamp crusher" means a device attached to a drum or container that mechanically reduces the size of lamps and includes a bag filter followed in series by a HEPA filter and an activated carbon filter. Drum-top crushers are the only devices that can be approved for the use of crushing lamps.

(g) "FIFRA" means the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 136-136y.

(h) "Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in Rule R315-261 or whose act first causes a hazardous waste to become subject to regulation.

(i) "Lamp," also referred to as "universal waste lamp" is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

(j) "Large Quantity Handler of Universal Waste" means a universal waste handler, as defined in Section R315-273-9 who accumulates 5,000 kilograms or more total of universal waste; batteries, pesticides, mercury-containing equipment, lamps, aerosol cans, or any other universal waste regulated in Rule R315-273, calculated collectively; at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which the 5,000 kilogram limit is met or exceeded.

(k) "Mercury-containing equipment" means a device or part of a device, including thermostats, but excluding batteries and lamps, that contains elemental mercury integral to its function.

(l) "On-site" means the same or geographically contiguous property which may be divided by public or private right-of-way, if the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right-of-way. Non-contiguous properties owned by a person but connected by a right-of-way which he controls and to which the public does not have access, are also considered on-site property.

(m) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(1) is a new animal drug under Federal Food, Drug, and Cosmetic Act (FFDCA) Section 201(w);

(2) is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug; or

(3) is an animal feed under FFDCA Section 201(x) that bears or contains any substances described by Subsections R315-273-

9(m)(1) or R315-273-9(m)(2).

(n) "Small Quantity Handler of Universal Waste" means a universal waste handler, as defined in this Section R315-273-9 who does not accumulate 5,000 kilograms or more of universal waste, batteries, pesticides, mercury-containing equipment, lamps, aerosol cans, or any other universal waste regulated in Rule R315-273, calculated collectively, at any time.

(o) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of Subsections R315-273-13(c)(2) or R315-273-33(c)(2).

(p) "Universal Waste" means any of the following hazardous wastes that are subject to the universal waste requirements of Rule R315-273:

(1) batteries as described in Section R315-273-2;

(2) pesticides as described in Section R315-273-3;

(3) mercury-containing equipment as described in Section R315-273-4;

(4) lamps as described in Section R315-273-5;

(5) aerosol cans as described in Section R315-273-6; and

(6) antifreeze as described in Section R315-273-7.

(q) "Universal Waste Handler:"

(1) means:

(i) a generator, as defined in Section R315-273-9, of universal waste; or

(ii) the owner or operator of a facility, including any contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(2) Does not mean:

(i) a person who treats, except under Subsections R315-273-13(a) or R315-273-13(c), or R315-273-33(a) or R315-273-33(c), disposes of, or recycles, except under Subsections R315-273-13(f) or R315-273-33(f), universal waste; or

(ii) a person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(r) "Universal Waste Transfer Facility" means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

(s) "Universal Waste Transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

R315-273-10. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Applicability.

Sections R315-273-10 through 20 apply to small quantity handlers of universal waste, as defined in Section R315-273-9.

R315-273-11. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Prohibitions.

A small quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in Section R315-273-17; or by managing specific wastes as provided in Section R315-273-13.

R315-273-12. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Notification.

A small quantity handler of universal waste is not required to notify the Director of universal waste handling activities except as required under Subsection R315-273-13(3).

R315-273-13. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Waste Management.

(a) Batteries. A small quantity handler of universal waste shall manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste shall contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the contents of the battery, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed, except that cells may be opened to remove electrolyte but shall be immediately closed after removal:

(i) sorting batteries by type;

(ii) mixing battery types in one container;

(iii) discharging batteries so as to remove the electric charge;

(iv) regenerating used batteries;

(v) disassembling batteries or battery packs into individual batteries or cells;

(vi) removing batteries from consumer products; or

(vii) removing electrolyte from batteries.

(3) A small quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste, such as battery pack materials or discarded consumer products, as a result of the activities listed in Subsection R315-273-13(a)(2), shall determine whether the electrolyte and other solid waste exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through R315-261-24.

(i) If the electrolyte or other solid waste exhibit a characteristic of hazardous waste, it is subject to the applicable requirements of Rules R315-260 through R315-266, R315-268 and R315-270. The handler is considered the generator of the hazardous electrolyte and other waste and is subject to Rule R315-262.

(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste rules or regulations.

(b) Pesticides. A small quantity handler of universal waste shall manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides shall be contained in one or more of the following:

(1) a container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;

(2) a container that does not meet the requirements of Subsection R315-273-13(b)(1), if the unacceptable container is overpacked in a container that does meet the requirements of Subsection R315-273-13(b)(1);

(3) a tank that meets the requirements of Sections R315-265-190 through R315-265-202, except for Subsection R315-265-197(c) and Section R315-265-200; or

(4) a transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Mercury-containing equipment. A small quantity handler of universal waste shall manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste shall place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container shall be closed, structurally sound, compatible with the contents of the device, shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and shall be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(2) A small quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment if the handler:

(i) removes and manages the ampules in a manner designed to prevent breakage of the ampules;

(ii) removes the ampules only over or in a containment device, such as a tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage;

(iii) ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules from that containment device to a container that is subject to the applicable requirements of Rules R315-260 through R315-270;

(iv) immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of Rules R315-260 through R315-270;

(v) ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;

(3) A small quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment if the handler:

(i) immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and

(ii) follows the requirements for removing ampules and managing removed ampules under Subsection R315-273-13(c)(2); and

(4)(i) A small quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing shall determine whether one or both of the following exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through R315-261-24:

(A) mercury or clean-up residues resulting from spills or leaks;

(B) other solid waste generated as a result of the removal of mercury-containing ampules or housings, such as the remaining mercury-containing device; or both.

(ii) If the mercury, residues, other solid waste, or any combination of the three exhibits a characteristic of hazardous waste, it shall be managed in compliance with the applicable requirements of Rules R315-260 through R315-266, R315-268, and R315-270. The handler is considered the generator of the mercury, residues, other waste, or any combination of the three and shall manage it in compliance with

Rule R315-262.

(iii) If the mercury, residues, other solid waste, or any combination of the three is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste rules or regulations.

(d) Lamps. A small quantity handler of universal waste shall manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste shall contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages shall remain closed and shall lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste shall immediately clean up and place in a container any lamp that is broken and shall place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers shall be closed, structurally sound, compatible with the contents of the lamps and shall lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

(3) A small quantity handler of universal waste may crush universal waste lamps using a drum-top lamp crusher designed specifically for crushing lamps after the small quantity handler submits a drum-top lamp crusher registration application to and receives approval from the Director. The registration application shall demonstrate that the small quantity handler shall operate the drum-top lamp crusher to ensure the following:

(i) the lamps are crushed in a closed accumulation container as specified by the manufacturer of the drum-top lamp crusher;

(ii) the lamps are crushed in a controlled manner that prevents the release of mercury vapor or other contaminants in exceedance of the manufacturer's specifications;

(iii) the drum-top lamp crusher shall have a filtration system consisting of, at a minimum, a bag filter followed in series by a HEPA filter and an activated carbon filter;

(iv) the drum-top lamp crusher is installed, maintained, and operated in accordance with written procedures developed by the manufacturer of the equipment including specific instructions for the frequency of filter changes;

(v) filters are either characterized to demonstrate that they are not a hazardous waste or managed as a hazardous waste;

(vi) a spill clean-up kit is available;

(vii) the area in which the drum-top crusher is operated is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(viii) an employee using the drum-top lamp crusher is trained annually on the written operating, safety, personal protection and maintenance procedures of the system;

(ix) an employee using the drum-top lamp crusher is trained annually in emergency procedures;

(x) an operating record is kept and consists of the following:

(A) the number and size of lamps crushed per calendar day, per calendar month, and per calendar year;

(B) the schedule for the change out of filters;

(C) date and time of filter change out;

(D) date, type, and time of equipment maintenance;

(E) any occurrence of equipment malfunction; and

(F) procedures for preventing equipment malfunctions.

(4) The operating record shall be maintained for at least three years.

(5) When a drum-top crusher is no longer used or is relocated, the area where the crusher was located shall be decontaminated of any mercury and other contaminants caused by the use of the drum-top lamp crusher. A report documenting the decontamination steps as well as supporting analytical data demonstrating successful remediation shall be submitted to the Director for approval within 30 days following completion of decontamination.

(6) The small quantity handler shall provide a closure plan along with a detailed written estimate, in current dollars, of the cost of disposing of the drum-top lamp crusher; decontamination of the area surrounding the drum-top lamp crusher, and any analytical costs required to show that decontamination is complete. Drum-top lamp crushers operated by the state or the federal government are exempt from the cost estimate requirement of Subsection R315-273-13(d)(6).

(7) The small quantity handler shall demonstrate financial assurance for the detailed cost estimates determined in Subsection R315-273-13(d)(6) using one of the options in Subsections R315-261-143(a) through R315-261-143(e). Drum-top lamp crushers operated by the state or the federal government are exempt from the financial assurance requirement of Subsection R315-273-13(d)(7).

(8) Crushed universal waste lamps may be managed as universal waste lamps under Rule R315-273 or they may be managed as hazardous waste in accordance with the applicable requirements of Rules R315-260 through R315-266 and R315-268.

(e) Antifreeze. A small quantity handler of universal waste shall manage universal waste antifreeze in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste antifreeze shall be contained in one or more of the following:

(1) a container that remains closed, structurally sound, compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;

(2) a container that does not meet the requirements of Subsection R315-273-13(e)(1), if the unacceptable container is overpacked in a container that does meet the requirements of Subsection R315-273-13(e)(1);

(3) a tank that meets the requirements of Sections R315-265-190 through R315-265-202, except for Subsection R315-265-197(c) and Section R315-265-200; or

(4) a transport vehicle or vessel that is closed, structurally sound, compatible with the antifreeze, and that lacks evidence of

leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(f) Aerosol cans. A small quantity handler of universal waste shall manage universal waste aerosol cans in a way that prevents release of any universal waste or component of a universal waste to the environment as follows:

(1) Universal waste aerosol cans shall be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and is protected from sources of heat.

(2) Universal waste aerosol cans that show evidence of leakage shall be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the requirements of Subsection R315-273-13(f)(4).

(3) A small quantity handler of universal waste may conduct the following activities as long as each individual aerosol can is not breached and remains intact:

(i) sorting aerosol cans by type;

(ii) mixing intact cans in one container; and

(iii) removing actuators to reduce the risk of accidental release.

(4) A small quantity handler of universal waste who punctures and drains their aerosol cans shall recycle the empty punctured aerosol cans and meet the following requirements while puncturing and draining universal waste aerosol cans:

(i) Conduct puncturing and draining activities using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

(ii) Establish and follow a written procedure detailing how to safely puncture and drain universal waste aerosol cans, including proper assembly, operation and maintenance of the unit, segregation of incompatible wastes, and proper waste management practices to prevent fires or releases; maintain a copy of the manufacturer's specifications and instructions on-site; and ensure employees operating the device are trained in the proper procedures.

(iii) Ensure that puncturing of the can is done in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. This manner includes locating the equipment on a solid, flat surface in a well ventilated area.

(iv) Immediately transfer the contents of the universal waste aerosol can or puncturing device, if applicable, to a container or tank that meets the requirements of Sections R315-262-14, R315-262-15, R315-262-16 or R315-262-17.

(v) Conduct a hazardous waste determination on the contents of the emptied aerosol can in accordance with Section R315-262-11. Hazardous waste generated as a result of puncturing and draining the aerosol can is subject to the applicable requirements of Rules R315-260 through R315-270. The handler is considered the generator of the hazardous waste and is subject to Rule R315-262.

(vi) If the contents are determined to be nonhazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state, or local solid waste rules or regulations.

(vii) A written procedure shall be in place in the event of a spill or leak and a spill clean-up kit shall be provided. Spills or leaks of the contents of the aerosol cans shall be cleaned up promptly.

R315-273-14. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Labeling and Marking.

A small quantity handler of universal waste shall label or mark the universal waste to identify the type of universal waste as specified in Subsections R315-273-14(a) through R315-273-14(g).

(a) Universal waste batteries, that is, each battery, or a container in which the batteries are contained, shall be labeled or marked clearly with any one of the following phrases: "Universal Waste-Battery(ies)", or "Waste Battery(ies)", or "Used Battery(ies)".

(b) A container, or multiple container package unit, tank, transport vehicle or vessel in which recalled universal waste pesticides as described in Subsection R315-273-3(a)(1) are contained shall be labeled or marked clearly with:

(1) the label that was on or accompanied the product as sold or distributed; and

(2) the words "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)".

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in Subsection R315-273-3(a)(2) are contained shall be labeled or marked clearly with:

(1)(i) the label that was on the product when purchased, if still legible;

(ii) if using the labels described in Subsection R315-273-14(c)(1)(i) is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;

(iii) if using the labels described in Subsections R315-273-14(c)(1)(i) and (ii) is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a state; and

(2) the words "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)".

(d)(1) Universal waste mercury-containing equipment, that is, each device, or a container in which the equipment is contained, shall be labeled or marked clearly with any of the following phrases: "Universal Waste-Mercury Containing Equipment", "Waste Mercury-Containing Equipment," or "Used Mercury-Containing Equipment".

(2) A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases: "Universal Waste-Mercury Thermostat(s)", "Waste Mercury Thermostat(s)", or "Used Mercury Thermostat(s)".

(e) Each lamp or a container or package in which such lamps are contained shall be labeled or marked clearly with one of the following phrases: "Universal Waste-Lamp(s)", or "Waste Lamp(s)", or "Used Lamp(s)".

(f) A container, tank, or transport vehicle or vessel in which antifreeze is contained shall be labeled or marked clearly with the words "Universal Waste-antifreeze".

(g) Universal waste aerosol cans, that is, each aerosol can, or a container in which the aerosol cans are contained, shall be labeled

or marked clearly with any of the following phrases: "Universal Waste-Aerosol Can(s)", "Waste Aerosol Can(s)", or "Used Aerosol Can(s)".

R315-273-15. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Accumulation Time Limits.

(a) A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of Subsection R315-273-15(b) are met.

(b) A small quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A small quantity handler of universal waste who accumulates universal waste shall be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(1) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

(2) Marking or labeling each individual item of universal waste with the date it became a waste or was received;

(3) Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;

(4) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(5) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(6) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

R315-273-16. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Employee Training.

A small quantity handler of universal waste shall inform all employees who handle or have responsibility for managing universal waste. The information shall describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

R315-273-17. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Response to Releases.

(a) A small quantity handler of universal waste shall immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A small quantity handler of universal waste shall determine whether any material resulting from the release is hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of Rules R315-260 through 266, 268 and 270. The handler is considered the generator of the material resulting from the release, and shall manage it in compliance with Rule R315-262.

R315-273-18. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Off-Site Shipments.

(a) A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a small quantity handler of universal waste self-transports universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and shall comply with the transporter requirements of Sections R315-273-50 through 56 while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR parts 171 through 180, a small quantity handler of universal waste shall package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 through 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler shall ensure that the receiving handler agrees to receive the shipment.

(e) If a small quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler shall either:

(1) Receive the waste back when notified that the shipment has been rejected, or

(2) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A small quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he shall contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler shall:

(1) Send the shipment back to the originating handler, or

(2) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a small quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler shall immediately notify the Director of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The Director shall provide instructions for managing the hazardous waste.

(h) If a small quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

R315-273-19. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Tracking Universal Waste Shipments.

A small quantity handler of universal waste is not required to keep records of shipments of universal waste.

R315-273-20. Standards for Universal Waste Management, Standards for Small Quantity Handlers of Universal Waste -- Exports.

A small quantity handler of universal waste who sends universal waste to a foreign destination is subject to the requirements of Sections R315-262-80 through 262-84, shall:

(a) Comply with the requirements applicable to a primary exporter in Section R315-262-53, Subsections R315-262-56(a)(1) through (4), (6), and (b) and Section R315-262-57;

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgement of Consent as defined in Sections R315-262-50 through 58; and

(c) Provide a copy of the EPA Acknowledgment of Consent for the shipment to the transporter transporting the shipment for export.

R315-273-30. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Applicability.

Sections R315-273-30 through 40 apply to large quantity handlers of universal waste, as defined in Section R315-273-9.

R315-273-31. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Prohibitions.

A large quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in Section R315-273-37; or by managing specific wastes as provided in Section R315-273-33.

R315-273-32. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Notification.

(a)(1) Except as provided in Subsections R315-273-32(a)(2) and R315-273-32(a)(3), a large quantity handler of universal waste shall have sent written notification of universal waste management to the Director, and received an EPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.

(2) A large quantity handler of universal waste who has already notified the Director of his hazardous waste management activities and has received an EPA Identification Number is not required to renotify under Section R315-273-32 except as required in Subsection R315-273-33(d)(3).

(3) A large quantity handler of universal waste who manages recalled universal waste pesticides as described in Subsection R315-273-3(a)(1) and who has sent notification to EPA as required by 40 CFR part 165 is not required to notify for those recalled universal waste pesticides under Section R315-273-32.

(b) This notification shall include:

(1) the universal waste handler's name and mailing address;

(2) the name and business telephone number of the person at the universal waste handler's site who should be contacted regarding universal waste management activities;

(3) the address or physical location of the universal waste management activities;

(4) a list of the types of universal waste managed by the handler, for example, batteries, pesticides, mercury-containing equipment, lamps, and aerosol cans; and

(5) a statement indicating that the handler is accumulating more than 5,000 kilograms of universal waste at one time.

R315-273-33. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Waste Management.

(a) Batteries. A large quantity handler of universal waste shall manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste shall contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container shall be closed, structurally sound, compatible with the contents of the battery, and shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed, except that cells may be opened to remove electrolyte but shall be immediately closed after removal:

(i) sorting batteries by type;

(ii) mixing battery types in one container;

(iii) discharging batteries so as to remove the electric charge;

(iv) regenerating used batteries;

(v) disassembling batteries or battery packs into individual batteries or cells;

(vi) removing batteries from consumer products; or

(vii) removing electrolyte from batteries.

(3) A large quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste, such as battery pack materials or discarded consumer products, as a result of the activities listed in Subsection R315-273-33(a)(2), shall determine whether the electrolyte and other solid waste exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through R315-261-24.

(i) If the electrolyte or other solid waste exhibit a characteristic of hazardous waste, it shall be managed in compliance with the applicable requirements of Rules R315-260 through R315-266, R315-268 and R315-270. The handler is considered the generator of the hazardous electrolyte and other waste and is subject to Rule R315-262.

(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste rules or regulations.

(b) Pesticides. A large quantity handler of universal waste shall manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides shall be contained in one or more of the following:

(1) a container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;

(2) a container that does not meet the requirements of Subsection R315-273-33(b)(1), if the unacceptable container is overpacked in a container that does meet the requirements of Subsection R315-273-33(b)(1);

(3) a tank that meets the requirements of Sections R315-265-190 through R315-265-202, except for Subsection R315-265-197(c) and Section R315-265-200; or

(4) a transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Mercury-containing equipment. A large quantity handler of universal waste shall manage universal waste mercury-containing equipment in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste shall place in a container any universal waste mercury-containing equipment with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container shall be closed, structurally sound, compatible with the contents of the device, shall lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and shall be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(2) A large quantity handler of universal waste may remove mercury-containing ampules from universal waste mercury-containing equipment if the handler:

(i) removes and manages the ampules in a manner designed to prevent breakage of the ampules;

(ii) removes the ampules only over or in a containment device, such as a tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage;

(iii) ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks of broken ampules from that containment device to a container that is subject to the applicable requirements of Rules R315-260 through R315-270;

(iv) immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of Rules R315-260 through R315-270;

(v) ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) stores removed ampules in closed, non-leaking containers that are in good condition; and

(viii) packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation;

(3) A large quantity handler of universal waste mercury-containing equipment that does not contain an ampule may remove the open original housing holding the mercury from universal waste mercury-containing equipment if the handler:

(i) immediately seals the original housing holding the mercury with an air-tight seal to prevent the release of any mercury to the environment; and

(ii) follows the requirements for removing ampules and managing removed ampules under Subsection R315-273-33(c)(2); and

(4)(i) a large quantity handler of universal waste who removes mercury-containing ampules from mercury-containing equipment or seals mercury from mercury-containing equipment in its original housing shall determine whether one or both of the following exhibit a characteristic of hazardous waste identified in Sections R315-261-20 through R315-261-24:

(A) mercury or clean-up residues resulting from spills or leaks;

(B) other solid waste generated as a result of the removal of mercury-containing ampules or housings, such as the remaining mercury-containing device; or both.

(ii) If the mercury, residues, other solid waste, or any combination of the three exhibits a characteristic of hazardous waste, it shall be managed in compliance with the applicable requirements of Rules R315-260 through R315-266, R315-268 and R315-270. The handler is considered the generator of the mercury, residues, other waste, or any combination of the three and shall manage it in compliance with Rule R315-262.

(iii) If the mercury, residues, other solid waste, or any combination of the three is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste rules or regulations.

(d) Lamps. A large quantity handler of universal waste shall manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste shall contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages shall remain closed and shall lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste shall immediately clean up and place in a container any lamp that is broken and shall place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers shall be closed, structurally sound, compatible with the contents of the lamps and shall lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

(3) A large quantity handler of universal waste may crush universal waste lamps using a drum-top lamp crusher designed specifically for crushing lamps after the large quantity handler submits a drum-top lamp crusher registration application to and receives approval from the Director. The registration application shall demonstrate that the large quantity handler shall operate the drum-top lamp crusher to ensure the following:

(i) the lamps are crushed in a closed accumulation container as specified by the manufacturer of the drum-top lamp crusher;

(ii) the lamps are crushed in a controlled manner that prevents the release of mercury vapor or other contaminants in exceedance of the manufacturer's specifications;

(iii) the drum-top lamp crusher shall have a filtration system consisting of, at a minimum, a bag filter followed in series by a HEPA filter and an activated carbon filter;

(iv) the drum-top lamp crusher is installed, maintained, and operated in accordance with written procedures developed by the manufacturer of the equipment including specific instructions for the frequency of filter changes;

(v) filters are either characterized to demonstrate that they are not a hazardous waste or managed as a hazardous waste;

(vi) a spill clean-up kit is available;

(vii) the area in which the drum-top crusher is operated is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(viii) the employee using the drum-top lamp crusher is trained annually on the written operating, safety, personal protection and maintenance procedures of the system;

(ix) an employee using the drum-top lamp crusher is trained annually in emergency procedures; and

(x) an operating record is kept and consists of the following:

(A) the number and size of lamps crushed per calendar day, per calendar month, and per calendar year;

(B) the schedule for the change out of filters;

(C) date and time of filter change out;

(D) date, type, and time of equipment maintenance;

(E) any occurrence of equipment malfunction; and

(F) procedures for preventing equipment malfunctions.

(4) The operating record shall be maintained for at least three years.

(5) When a drum-top crusher is no longer used or is relocated, the area where the crusher was located shall be decontaminated of any mercury and other contaminants caused by the use of the drum-top lamp crusher. A report documenting the decontamination steps as well as supporting analytical data demonstrating successful remediation shall be submitted to the Director for approval within 30 days following completion of decontamination.

(6) The large quantity handler shall provide a closure plan along with a detailed written estimate, in current dollars, of the cost of disposing the drum-top lamp crusher; decontamination of the area surrounding the drum-top lamp crusher, and any analytical costs required to show that decontamination is complete. Drum-top lamp crushers operated by the state or the federal government are exempt from the cost estimate requirement of Subsection R315-273-33(d)(6).

(7) The large quantity handler shall demonstrate financial assurance for the detailed cost estimates determined in Subsection R315-273-33(d)(6) using one of the options in Subsections R315-261-143(a) through R315-261-143(e). Drum-top lamp crushers operated by the state or the federal government are exempt from the financial assurance requirement of Subsection R315-273-33(d)(7).

(8) Crushed universal waste lamps may be managed as universal waste lamps under Rule R315-273 or they may be managed as hazardous waste in accordance with the applicable requirements of Rules R315-260 through R315-266 and R315-268.

(e) Antifreeze. A large quantity handler of universal waste shall manage universal waste antifreeze in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste antifreeze shall be contained in one or more of the following:

(1) a container that remains closed, structurally sound, compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions;

(2) a container that does not meet the requirements of Subsection R315-273-13(e)(1), if the unacceptable container is overpacked in a container that does meet the requirements of Subsection R315-273-13(e)(1);

(3) a tank that meets the requirements of Sections R315-265-190 through R315-265-202, except for Subsection R315-265-197(c) and Section R315-265-200; or

(4) a transport vehicle or vessel that is closed, structurally sound, compatible with the antifreeze, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(f) Aerosol cans. A large quantity handler of universal waste shall manage universal waste aerosol cans in a way that prevents release of any universal waste or component of a universal waste to the environment as follows:

(1) Universal waste aerosol cans shall be accumulated in a container that is structurally sound, compatible with the contents of the aerosol cans, lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and is protected from sources of heat.

(2) Universal waste aerosol cans that show evidence of leakage shall be packaged in a separate closed container or overpacked with absorbents, or immediately punctured and drained in accordance with the requirements of Subsection R315-273-33(f).

(3) A large quantity handler of universal waste may conduct the following activities as long as each individual aerosol can is not breached and remains intact:

(i) sorting aerosol cans by type;

(ii) mixing intact cans in one container; and

(iii) removing actuators to reduce the risk of accidental release.

(4) A large quantity handler of universal waste who punctures and drains their aerosol cans shall recycle the empty punctured aerosol cans and meet the following requirements while puncturing and draining universal waste aerosol cans:

(i) Conduct puncturing and draining activities using a device specifically designed to safely puncture aerosol cans and effectively contain the residual contents and any emissions thereof.

(ii) Establish and follow a written procedure detailing how to safely puncture and drain the universal waste aerosol cans, including proper assembly, operation and maintenance of the unit, segregation of incompatible wastes, and proper waste management practices to prevent fires or releases; maintain a copy of the manufacturer's specifications and instructions on-site; and ensure employees operating the device are trained in the proper procedures.

(iii) Ensure that puncturing of the can is done in a manner designed to prevent fires and to prevent the release of any component of universal waste to the environment. This manner includes locating the equipment on a solid, flat surface in a well ventilated area.

(iv) Immediately transfer the contents from the waste aerosol can, or puncturing device, if applicable, to a container or tank that meets the requirements of Sections R315-262-14, R315-262-15, R315-262-16, or R315-262-17.

(v) Conduct a hazardous waste determination on the contents of the emptied aerosol can in accordance with Section R315-262-11. Any hazardous waste generated as a result of puncturing and draining the aerosol can is subject to the applicable requirements of Rules R315-260 through R315-270. The handler is considered the generator of the hazardous waste and is subject to Rule R315-262.

(vi) If the contents are determined to be nonhazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state, or local solid waste rules or regulations.

(vii) A written procedure shall be in place in the event of a spill or leak and a spill clean-up kit shall be provided. Spills or leaks of the contents of the aerosol cans shall be cleaned up promptly.

R315-273-34. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Labeling and Marking.

A large quantity handler of universal waste shall label or mark the universal waste to identify the type of universal waste as specified in Subsections R315-273-34(a) through R315-273-34(g).

(a) Universal waste batteries, that is, each battery, or a container or tank in which the batteries are contained, shall be labeled or marked clearly with any one of the following phrases: "Universal Waste-Battery(ies)", or "Waste Battery(ies)", or "Used Battery(ies)".

(b) A container, or multiple container package unit, tank, transport vehicle or vessel in which recalled universal waste pesticides as described in Subsection R315-273-3(a)(1) are contained shall be labeled or marked clearly with:

(1) the label that was on or accompanied the product as sold or distributed; and

(2) the words "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)".

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in Subsection R315-273-3(a)(2) are contained shall be labeled or marked clearly with:

(1)(i) the label that was on the product when purchased, if still legible;

(ii) if using the labels described in Subsection R315-273-34(c)(1)(i) is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;

(iii) if using the labels described in Subsections R315-273-34(c)(1)(i) and R315-273-34(c)(1)(ii) is not feasible, another label prescribed or designated by the pesticide collection program; and

(2) the words "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)".

(d)(1) Mercury-containing equipment, that is, each device, or a container in which the equipment is contained, shall be labeled or marked clearly with any of the following phrases: "Universal Waste-Mercury Containing Equipment", "Waste Mercury-Containing Equipment", or "Used Mercury-Containing Equipment".

(2) A universal waste mercury-containing thermostat or container containing only universal waste mercury-containing thermostats may be labeled or marked clearly with any of the following phrases: "Universal Waste-Mercury Thermostat(s)", "Waste Mercury Thermostat(s)", or "Used Mercury Thermostat(s)".

(e) Each lamp or a container or package in which such lamps are contained shall be labeled or marked clearly with any one of the following phrases: "Universal Waste-Lamp(s)", or "Waste Lamp(s)", or "Used Lamp(s)".

(f) A container, tank, or transport vehicle or vessel in which antifreeze is contained shall be labeled or marked clearly with the words "Universal Waste-antifreeze".

(g) Universal waste aerosol cans, that is, each aerosol can, or a container in which the aerosol cans are contained, shall be labeled or marked clearly with any one of the following phrases: "Universal Waste-Aerosol Can(s)", "Waste Aerosol Can(s)", or "Used Aerosol Can(s)".

R315-273-35. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Accumulation Time Limits.

(a) A large quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of Subsection R315-273-35(b) are met.

(b) A large quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A large quantity handler of universal waste shall be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(1) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;

(2) Marking or labeling the individual item of universal waste, e.g., each battery or thermostat, with the date it became a waste or was received;

(3) Maintaining an inventory system on-site that identifies the date the universal waste being accumulated became a waste or was received;

(4) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(5) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(6) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

R315-273-36. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Employee Training.

A large quantity handler of universal waste shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

R315-273-37. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Response To Releases.

(a) A large quantity handler of universal waste shall immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A large quantity handler of universal waste shall determine whether any material resulting from the release is hazardous waste, and if so, shall manage the hazardous waste in compliance with all applicable requirements of Rules R315-260 through 266, 268 and 270. The handler is considered the generator of the material resulting from the release, and is subject to Rule R315-262.

R315-273-38. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Off-Site Shipments.

(a) A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a large quantity handler of universal waste self-transports universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and shall comply with the transporter requirements of Sections R315-273-50 through 56 while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 through 180, a large quantity handler of universal waste shall package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 through 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler shall ensure that the receiving handler agrees to receive the shipment.

(e) If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler shall either:

(1) Receive the waste back when notified that the shipment has been rejected, or

(2) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he shall contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler shall:

(1) Send the shipment back to the originating handler, or

(2) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a large quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler shall immediately notify the Director of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The Director shall provide instructions for managing the hazardous waste.

(h) If a large quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

R315-273-39. Standards for Universal Waste Management, Standards For Large Quantity Handlers Of Universal Waste -- Tracking Universal Waste Shipments.

(a) Receipt of shipments. A large quantity handler of universal waste shall keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste received shall include the following information:

(1) The name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;

(2) The quantity of each type of universal waste received;

(3) The date of receipt of the shipment of universal waste.

(b) Shipments off-site. A large quantity handler of universal waste shall keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading movement document or other shipping document. The record for each shipment of universal waste sent shall include the following information:

(1) The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;

(2) The quantity of each type of universal waste sent;

(3) The date the shipment of universal waste left the facility.

(c) Record retention.

(1) A large quantity handler of universal waste shall retain the records described in Subsection R315-273-39(a) for at least three years from the date of receipt of a shipment of universal waste.

(2) A large quantity handler of universal waste shall retain the records described in Subsection R315-273-39(b) for at least three years from the date a shipment of universal waste left the facility.

R315-273-40. Standards for Universal Waste Management, Standards for Large Quantity Handlers of Universal Waste -- Exports.

A large quantity handler of universal waste who sends universal waste to a foreign destination is subject to the requirements of Sections R315-262-80 through 262-84, shall:

(a) Comply with the requirements applicable to a primary exporter in Section R315-262-53, Subsections R315-262-56(a)(1) through (4), (6), and (b) and Section R315-262-57;

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgement of Consent as defined in Sections R315-262-50 through 58; and

(c) Provide a copy of the EPA Acknowledgement of Consent for the shipment to the transporter transporting the shipment for export.

R315-273-50. Standards for Universal Waste Management, Standards for Universal Waste Transporters -- Applicability.

Sections R315-273-50 through 56 apply to universal waste transporters, as defined in Section R315-273-9.

R315-273-51. Standards for Universal Waste Management, Standards for Universal Waste Transporters -- Prohibitions.

A universal waste transporter is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in Section R315-273-54.

R315-273-52. Standards for Universal Waste Management, Standards for Universal Waste Transporters -- Waste Management.

(a) A universal waste transporter shall comply with all applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 for transport of any universal waste that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of Rule R315-262. Because universal waste does not require a hazardous waste manifest, it is not considered hazardous waste under the Department of Transportation regulations.

(b) Some universal waste materials are regulated by the Department of Transportation as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 CFR 173.2. As universal waste shipments do not require a manifest under Rule R315-262, they may not be described by the DOT proper shipping name "hazardous waste, (l) or (s), n.o.s.", nor may the hazardous material's proper shipping name be modified by adding the word "waste".

R315-273-53. Standards for Universal Waste Management, Standards for Universal Waste Transporters -- Storage Time Limits.

(a) A universal waste transporter may only store the universal waste at a universal waste transfer facility for ten days or less.

(b) If a universal waste transporter stores universal waste for more than ten days, the transporter becomes a universal waste handler and shall comply with the applicable requirements of Sections R315-273-10 through 20 and 30 through 40 while storing the

universal waste.

R315-273-54. Standards for Universal Waste Management, Standards for Universal Waste Transporters -- Response to Releases.

(a) A universal waste transporter shall immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A universal waste transporter shall determine whether any material resulting from the release is hazardous waste, and if so, it is subject to all applicable requirements of Rules R315-260 through 266, 268 and 270. If the waste is determined to be a hazardous waste, the transporter is subject to Rule R315-262.

R315-273-55. Standards for Universal Waste Management, Standards for Universal Waste Transporters -- Off-site Shipments.

(a) A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.

(b) If the universal waste being shipped off-site meets the Department of Transportation's definition of hazardous materials under 49 CFR 171.8, the shipment shall be properly described on a shipping paper in accordance with the applicable Department of Transportation regulations under 49 CFR part 172.

R315-273-56. Standards for Universal Waste Management, Standards for Universal Waste Transporters -- Exports.

A universal waste transporter transporting a shipment of universal waste to a foreign destination is subject to the requirements of Sections R315-262-80 through 262-84, may not accept a shipment if the transporter knows the shipment does not conform to the EPA Acknowledgment of Consent. In addition the transporter shall ensure that:

(a) A copy of the EPA Acknowledgment of Consent accompanies the shipment; and

(b) The shipment is delivered to the facility designated by the person initiating the shipment.

R315-273-60. Standards for Universal Waste Management, Standards for Destination Facilities -- Applicability.

(a) The owner or operator of a destination facility, as defined in Section R315-273-9, is subject to all applicable requirements of Rules R315-264, 265, 266, 268, 270, and 124, and the notification requirement under section 3010 of RCRA.

(b) The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled shall comply with Subsection R315-261-6(c)(2).

R315-273-61. Standards for Universal Waste Management, Standards for Destination Facilities -- Off-site Shipments.

(a) The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than a universal waste handler, another destination facility or foreign destination.

(b) The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, he shall contact the shipper to notify him of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility shall:

(1) Send the shipment back to the original shipper, or

(2) If agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.

(c) If the owner or operator of a destination facility receives a shipment containing hazardous waste that is not a universal waste, the owner or operator of the destination facility shall immediately notify the Director of the illegal shipment, and provide the name, address, and phone number of the shipper. The Director shall provide instructions for managing the hazardous waste.

(d) If the owner or operator of a destination facility receives a shipment of non-hazardous, non-universal waste, the owner or operator may manage the waste in any way that is in compliance with applicable federal or state solid waste regulations.

R315-273-62. Standards for Universal Waste Management, Standards for Destination Facilities -- Tracking Universal Waste Shipments.

(a) The owner or operator of a destination facility shall keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, movement document or other shipping document. The record for each shipment of universal waste received shall include the following information:

(1) The name and address of the universal waste handler, destination facility, or foreign shipper from whom the universal waste was sent;

(2) The quantity of each type of universal waste received;

(3) The date of receipt of the shipment of universal waste.

(b) The owner or operator of a destination facility shall retain the records described in Subsection R315-273-62(a) for at least three years from the date of receipt of a shipment of universal waste.

R315-273-70. Standards for Universal Waste Management -- Imports.

Persons managing universal waste that is imported from a foreign country into the United States are subject to the requirements of Sections R315-262-80 through 262-84 and the applicable requirements of Rule R315-273, immediately after the waste enters the United States, as indicated in Subsection R315-273-70(a) through (c):

(a) A universal waste transporter is subject to the universal waste transporter requirements of Sections R315-273-50 through 56.

(b) A universal waste handler is subject to the small or large quantity handler of universal waste requirements of Sections R315-

273-10 through 20 or 30 through 40, as applicable.

(c) An owner or operator of a destination facility is subject to the destination facility requirements of Sections R315-273-60 through 62.

(d) Persons managing universal waste that is imported from an OECD country as specified in Subsection R315-262-58(a)(1) are subject to Subsections R315-273-70(a) through (c), in addition to the requirements of Sections R315-262-80 through 262-84.

R315-273-80. Standards for Universal Waste Management, Petitions to Include Other Wastes Under Rule R315-273 -- General.

(a) Except as provided in Subsection R315-273-80(e), any person seeking to add a hazardous waste or a category of hazardous waste to Rule R315-273 may petition for a rule amendment under Sections R315-273-80 and R315-273-81 and Sections R315-260-20 and R315-260-23.

(b) To be successful, the petitioner shall demonstrate to the satisfaction of the Board that regulation under the universal waste rules of Rule R315-273 is: appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition shall include the information required by Subsection R315-260-20(b). The petition should also address as many of the factors listed in Section R315-273-81 as are appropriate for the waste or waste category addressed in the petition.

(c) The Board shall evaluate petitions using the factors listed in Section R315-273-81. The Board shall grant or deny a petition using the factors listed in Section R315-273-81. The decision shall be based on the weight of evidence showing that regulation under Rule R315-273 is appropriate for the waste or category of waste, shall improve management practices for the waste or category of waste, and shall improve implementation of the hazardous waste program.

(d) The Board may request additional information needed to evaluate the merits of the petition.

(e) Hazardous waste pharmaceuticals are regulated by Sections R315-266-500 through R315-266-510 and may not be added as a category of hazardous waste for management under Rule R315-273.

R315-273-81. Standards for Universal Waste Management -- Factors for Petitions to Include Other Wastes Under Rule R315-273.

(a) The waste or category of waste, as generated by a wide variety of generators, is listed in Sections R315-261-30 through 3, or, if not listed, a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in Sections R315-261-20 through 24. When a characteristic waste is added to the universal waste regulations of this Rule R315-273 by using a generic name to identify the waste category, e.g., batteries, the definition of universal waste in Section R315-260-10 and Section R315-273-9 shal be amended to include only the hazardous waste portion of the waste category, e.g., hazardous waste batteries. Thus, only the portion of the waste stream that does exhibit one or more characteristics, i.e., is hazardous waste, is subject to the universal waste regulations of Rule R315-273;

(b) The waste or category of waste is not exclusive to a specific industry or group of industries, is commonly generated by a wide variety of types of establishments, including, for example, households, retail and commercial businesses, office complexes, very small quantity generators, small businesses, government organizations, as well as large industrial facilities;

(c) The waste or category of waste is generated by a large number of generators, e.g., more than 1,000 nationally, and is frequently generated in relatively small quantities by each generator;

(d) Systems to be used for collecting the waste or category of waste, including packaging, marking, and labeling practices, would ensure close stewardship of the waste;

(e) The risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes, and specific management standards proposed or referenced by the petitioner, e.g., waste management requirements appropriate to be added to Sections R315-273-13, 33, and 52; and/or applicable Department of Transportation requirements, would be protective of human health and the environment during accumulation and transport;

(f) Regulation of the waste or category of waste under Rule R315-273 will increase the likelihood that the waste will be diverted from non-hazardous waste management systems; e.g., the municipal waste stream, non-hazardous industrial or commercial waste stream, municipal sewer or stormwater systems; to recycling; treatment; or disposal in compliance with Title 19 Chapter 6.

(g) Regulation of the waste or category of waste under Rule R315-273 will improve implementation of and compliance with the hazardous waste regulatory program; and/or

(h) Such other factors as may be appropriate.

KEY: hazardous waste, universal waste
Date of Last Change: December 9, 2021
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

WASTE MANAGEMENT AND RADIATION CONTROL BOARD
Executive Summary
Final Adoption
Amendments to Utah Administrative Code Rules R315-260, 261, 262, 263, 264, 265, 266, and 270
November 13, 2025

What is the issue before the Board?	Approval from the Board is needed for final adoption of proposed changes to Utah Admin. Code Rules R315-260, 261, 262, 263, 264, 265, 266, and 270, to incorporate federal regulatory changes made by the U.S. Environmental Protection Agency (U.S. EPA). Additionally, the Division is incorporating additional requirements for the management of military munitions as requested by the U.S. EPA.
What is the historical background or context for this issue?	At the Board meeting on September 11, 2025, the Board approved the proposed changes to Utah Admin. Code Rules R315-260, 261, 262, 263, 264, 265, 266, and 270 to be filed with the Office of Administrative Rules for publication in the *Utah State Bulletin*. The proposed changes were published in the October 1, 2025, issue of the *Utah State Bulletin* (Vol. 2025, No. 19). Selected pages from the *Utah State Bulletin* showing the publication of the proposed changes follow this Executive Summary. The public comment period for this rulemaking ended on October 31, 2025; no comments were received.
What is the governing statutory or regulatory citation?	The Board is authorized under Subsection 19-6-105 to make rules governing generators and transporters of hazardous waste and owners and operators of hazardous waste treatment, storage and disposal facilities. The rule changes also meet existing DEQ and state rulemaking procedures.
Is Board action required?	Yes. Board approval for final adoption of the rule changes is necessary.
What is the Division Director's recommendation?	The Director recommends the Board approve final adoption of the changes to Utah Admin. Code Rules R315-260, 261, 262, 263, 264, 265, 266, and 270 as published in the October 1, 2025, issue of the *Utah State Bulletin* and set an effective date of November 17, 2025.
Where can more information be obtained?	Please contact Tom Ball by email at tball@utah.gov or by phone at 385-454-5574.

DSHW-2025-005532
Attachment: DSHW-2025-005531

UTAH STATE BULLETIN

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Nancy L. Lancaster, Managing Editor

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The information in this *Bulletin* is summarized in the *Utah State Digest (Digest)* of the same volume and issue number. The *Digest* is available by e-mail subscription or online. Visit https://rules.utah.gov/ for additional information.

Office of Administrative Rules, Salt Lake City 84114

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TABLE OF CONTENTS

EXECUTIVE DOCUMENTS **1**

PROCLAMATION

2025-05E 1

NOTICES OF PROPOSED RULES **2**

GOVERNMENT OPERATIONS, DATA PRIVACY

R18-1. Relief from Data Privacy Requirements 3

GOVERNMENT OPERATIONS, GOVERNMENT RECORDS OFFICE

R20-1. Definitions for Rules in Title R20 6

R20-3. Government Records Office Hearing Procedures 8

R20-4. Filing and Declining Hearings 11

R20-5. Compliance with Director Decisions and Orders 13

R20-6. Subpoenas Issued by the Director 15

R20-7. Expedited Hearing 18

AGRICULTURE AND FOOD, SPECIALIZED PRODUCTS

R66-2. Cannabis Processing 20

R66-6. Home Delivery and Courier 29

R66-29. Compliance Procedures 36

EDUCATION, ADMINISTRATION

R277-125. Small School District Capital Projects 39

R277-301. Educator Licensing 43

R277-318. Teacher Salary Supplement Program 51

R277-400. School Facility Emergency and Safety 54

R277-622. School-based Mental Health Qualifying Grant Program 61

R277-726. Statewide Online Education Program (SOEP) 66

R277-800. Utah Schools for the Deaf and the Blind (USDB) 81

ENVIRONMENTAL QUALITY, AIR QUALITY

R307-801. Utah Asbestos Rule 88

ENVIRONMENTAL QUALITY, DRINKING WATER

R309-305. Cross Connection Control and Backflow Prevention Certification 104

ENVIRONMENTAL QUALITY, ENVIRONMENTAL RESPONSE AND REMEDIATION

R311-200. Petroleum Storage Tanks: Definitions 114

R311-201. Petroleum Storage Tanks: Certification Programs and UST Operator Training 120
R311-203. Petroleum Storage Tanks: Technical Standards 130
R311-204. Petroleum Storage Tanks: Closure and Remediation 137
R311-212. Administration of the Petroleum Storage Tank Fund Loan Program 141
ENVIRONMENTAL QUALITY, WASTE MANAGEMENT AND RADIATION CONTROL, WASTE MANAGEMENT
R315-260. Hazardous Waste Management System 147
R315-261. General Requirements – Identification and Listing of Hazardous Waste 160
R315-262. Hazardous Waste Generator Requirements 186
R315-263. Standards Applicable to Transporters of Hazardous Waste and Standards Applicable to Emergency Control of Spills for Any Hazardous Waste Handlers 213
R315-264. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities 218
R315-265. Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities 240
R315-266. Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities 251
R315-270. Hazardous Waste Permit Program 271
GOVERNOR, ECONOMIC OPPORTUNITY
R357-13. Hotel Convention Center Incentive 278
MONEY MANAGEMENT COUNCIL, ADMINISTRATION
R628-4. Bonding of Public Treasurers 282
R628-12. Certification of Qualified Depositories for Public Funds 285
TAX COMMISSION, ADMINISTRATION
R861-1A-26. Procedures for Formal Adjudicative Proceedings Pursuant to Utah Code Ann. Sections 59-1-501 and 63G-4-204 through 63G-4-209 289
R861-1A-34. Private Letter Rulings Pursuant to Utah Code Ann. Section 59-1-210 293
TAX COMMISSION, PROPERTY TAX
R884-24P-19. Appraiser Designation Program Pursuant to Utah Code Ann. Sections 59-2-701 and 59-2-702 295
R884-24P-33. 2026 Personal Property Valuation Guides and Schedules Pursuant to Utah Code Ann. Section 59-2-107 302

R311-212-10. Forms.

(1) The forms dated and listed in this section, on file with the Department, are incorporated by reference as part of Rule R311-212, and shall be used by the director for making loans.

(a) Loan Application version [~~7/14/16~~]7/31/25

(b) Balance Sheet version 7/29/14

(c) Loan Agreement version [~~7/29/14~~]7/31/25

(d) Corporate Authorization version 7/29/14

(e) Promissory Note version 7/29/14

(f) Extension and Modification of Promissory Note Agreement version 7/29/14

(g) Security Agreement version 7/29/14

(h) Hypothecation Agreement version 7/29/14

(i) General Pledge Agreement version 7/29/14

(j) Assignment version 7/29/14

(k) Assignment of Account version 7/29/14

(l) Trust Deed version [~~7/29/14~~]7/31/25

(m) Trust Deed Note version 7/29/14

(n) Extension and Modification of Trust Deed Note Agreement version 7/29/14

(2) The director may require or allow the use of other forms that are consistent with these rules as necessary for the loan approval process.

(3) The director may change these forms for administrative purposes provided the revised forms remain consistent with the substantive provisions of the adopted forms.

R311-212-11. Rules in Effect.

[~~(1)~~]The rules in effect on the closing date of the loan and the forms signed by the parties shall govern the parties.

KEY: hazardous substances, petroleum, underground storage tanks
Date of Last Change: [~~July 15, 2022~~]2025
Notice of Continuation: March 8, 2022
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-403; 19-6-409

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-260**	**Filing ID: 57492**

Agency Information

1. Title catchline:	Environmental Quality, Waste Management and Radiation Control, Waste Management	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, UT 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:
R315-260. Hazardous Waste Management System
4. Purpose of the new rule or reason for the change:
In July of 2024, the EPA finalized rulemaking that integrates e-Manifest with hazardous waste exports and other manifest related reports, PCB manifest amendments, and technical corrections. This rulemaking amended federal regulations found in 40 CFR 260 in response to vacatur of certain provisions of the definition of solid waste that became effective in 2018. The conforming

change makes hazardous secondary material export documents available to the public on March 1 of the calendar year after the exports occur.

As an authorized state, Utah is required to maintain a program that is equivalent to the federal program and therefore, must amend Rule R315-260 to conform with the federal regulations.

5. Summary of the new rule or change:

Subsection R315-260-2(d)(1) is being amended to state that after 01/22/2025, a person submitting hazardous secondary material export documents to the EPA cannot make a claim of business confidentiality.

Subsection R315-260-2(d)(2) is being amended to state that after 01/22/2025, EPA will make hazardous secondary material export documents available to the public on March 1 of the calendar year after the exports occur.

Additionally, the Division of Waste Management and Radiation Control, Waste Management (Division) is correcting typographical and formatting errors in Sections R315-260-1, R315-260-2, and R315-260-10.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

It is not anticipated that this rulemaking will result in any cost or savings to the state budget because it does not require the state to do anything or stop doing anything with regards to these rules.

Additionally, the Division does not oversee the import or export of hazardous waste, this is handled by the EPA.

B. Local governments:

It is not anticipated that this rulemaking will result in any cost or savings to local governments because it does not require local governments to do anything or stop doing anything with regards to these rules.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

It is not anticipated that this rulemaking will result in any cost or savings to small businesses that must comply with these rules because it does not require them to do anything or stop doing anything with regards to these rules.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

It is not anticipated that this rulemaking will result in any cost or savings to non-small businesses that must comply with these rules because it does not require them to do anything or stop doing anything with regards to these rules.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

It is not anticipated that this rulemaking will result in any cost or savings to persons other than small businesses, non-small businesses, state or local governments that must comply with these rules because it does not require them to do anything or stop doing anything with regards to these rules.

F. Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs above those costs that are already in place for affected persons who must comply with these rules.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	FY2026	FY2027	FY2028	FY2029	FY2030
State Budget	$0	$0	$0	$0	$0

Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$0**	**$0**	**$0**	**$0**	**$0**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-1-301	Section 19-6-105	Section 19-6-106

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until:	10/31/2025

10. This rule change MAY become effective on:	11/17/2025

NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.

Agency Authorization Information

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	09/12/2025

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-260. Hazardous Waste Management System.
R315-260-1. Purpose, scope, and applicability.

(a) Rule R315-260 provides definitions of terms, general standards, and overview information applicable to Rules R315-260 through R315-265 and R315-268.

R315-260-2. Availability of Information and Confidentiality of Information.

(a) Any information provided to [~~The Director~~]the director under Rules R315-15 and R315-101; Rules R315-260 through R315-266, R315-268, R315-270 and R315-273 will be made available to the public to the extent and in the manner authorized by Sections 63G-2-101 through 63G-2-901.

(b) Except as provided under Subsections R315-260-2(c) and R315-260-2(d), any person who submits information to the [~~D~~]director in accordance with Rules R315-15 and R315-101; Rules R315-260 through R315-266, R315-268, R315-270 and R315-273 may assert a claim of business confidentiality covering any part [~~or all~~]of that information by following the procedures set forth in Section 63G-2-309. Information covered by such a claim shall be disclosed by the [~~D~~]director only to the extent, and by [~~means of~~]the procedures, set forth in Sections 63G-2-101 through 63G-2-901. However, if no claim under Sections 63G-2-101 through 63G-2-804 accompanies the information when it is received by the [~~D~~]director, it may be made available to the public without further notice to the person submitting it.

(c)(1) After August 6, 2014, no claim of business confidentiality may be asserted by any person with respect to information entered on a Hazardous Waste Manifest, EPA Form 8700-22, a Hazardous Waste Manifest Continuation Sheet, EPA Form 8700-22A, or an electronic manifest format that may be prepared and used in accordance with Subsection R315-262-20(a)(3).

(2) EPA shall make any electronic manifest that is prepared and used in accordance with Subsection R315-262-20(a)(3), or any paper manifest that is submitted to the system under Subsection R315-264-71(a)(6) or Subsection R315-265-71(a)(6), available to the public under Section R315-260-2 when the electronic or paper manifest is a complete and final document. Electronic manifests and paper manifests submitted to the system are considered by EPA to be complete and final documents and publicly available information after 90 days have passed since the delivery to the designated facility of the hazardous waste shipment identified in the manifest.

(d)(1) After [~~June 26, 2018~~]January 22, 2025, no claim of business confidentiality may be asserted by any person with respect to information contained in [~~cathode ray tube~~]hazardous secondary material export documents prepared, used and submitted under Subsection[~~s~~] R315-261-4(a)(25)[~~R315-261-39(a)(5) and 261-41(a), and with respect to information contained in hazardous waste export, import, and transit documents prepared, used and submitted under Sections R315-262-82, 262-83, 262-84, 263-20, 264-12, 264-71, 265-12, and 265-71~~], whether submitted electronically into the EPA's Waste Import Export Tracking System or in paper format.

(2) After January 22, 2025, the EPA will make [~~any cathode ray tube export documents prepared, used and submitted under Subsections R315-261-39(a)(5) and 261-41(a), and any hazardous waste export, import, and transit documents prepared, used and submitted under Sections R315-262-82, 262-83, 262-84, 263-20, 264-12, 264-71, 265-12, and 265-71~~]available to the public under Section R315-260-2 any hazardous secondary material export documents prepared, used, and submitted under Subsection R315-261-4(a)(25) on March 1 of the calendar year after the related hazardous secondary material exports occur, when these documents are considered by the EPA to be final documents.[~~when these electronic or paper documents are considered by EPA to be final documents. These submitted electronic and paper documents related to hazardous waste exports, imports and transits and cathode ray tube exports are considered by EPA to be final documents on March 1 of the calendar year after the related cathode ray tube exports or hazardous waste exports, imports, or transits occur.~~]

R315-260-10. Definitions.

(a) Terms used in Rules R315-15, R315-260 through R315-266, R315-268, R315-270, R315-273, and Rule R315-101 are defined in Sections 19-1-103 and 19-6-102.

(b) Terms used in Rule R315-15 are also defined in Sections 19-6-703 and 19-6-706.

(c) Additional terms used in Rules R315-260 through R315-266, R315-268, R315-270, R315-273, and Rule R315-101 are defined as follows:

(1) "Above ground tank" means a device meeting the definition of "tank" in Section R315-260-10 and that is situated in a way that the entire surface area of the tank is completely above the plane of the adjacent surrounding surface and the entire surface area of the tank, including the tank bottom, can be visually inspected.

(2) "Acute hazardous waste" means hazardous wastes that meet the listing criteria in Subsection R315-261-11(a)(2) and therefore are either listed in Section R315-261-31 with the assigned hazard code of (H) or are listed in Subsection R315-261-33(e).

(3) "Active life" of a facility means the period from the initial receipt of hazardous waste at the facility until the director receives certification of final closure.

(4) "Active portion" means that portion of a facility where treatment, storage, or disposal operations are being or have been conducted after November 19, 1980, and that is not a closed portion. See also "closed portion" and "inactive portion."

(5) "Aerosol can" means a non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure, for the sole purpose of [~~which is to~~]expelling a liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.

(6) "AES filing compliance date" means the date that EPA announces in the Federal Register, on or after which exporters of hazardous waste and exporters of cathode ray tubes for recycling are required to file EPA information in the Automated Export System or its successor system, under the International Trade Data System (ITDS) platform.

(7) "Airbag waste" means any hazardous waste airbag modules or hazardous waste airbag inflators.

(8) "Airbag waste collection facility" means any facility that receives airbag waste from airbag handlers subject to regulation under Subsection R315-261-4(j), and accumulates the waste for more than ten days.

(9) "Airbag waste handler" means any person, by site, who generates airbag waste that is subject to regulation under Rules R315-260 through R315-266, R315-268, R315-270, and R315-273.

(10) "Approved hazardous waste management facility" or "approved facility" means a hazardous waste treatment, storage, or disposal facility that has received an EPA permit in accordance with federal requirements, has been approved under Section 19-6-108 and Rule R315-270, or has been permitted or approved under any other EPA authorized hazardous waste state program.

(11) "Ancillary equipment" means any device including devices such as piping, fittings, flanges, valves, and pumps, that is used to distribute, meter, or control the flow of hazardous waste from its point of generation to storage or treatment tanks, between hazardous waste storage and treatment tanks to a point of disposal on-site, or to a point of shipment for disposal off-site.

(12) "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs.

(13) "Authorized representative" means the person responsible for the overall operation of a facility or an operational unit that is part of a facility, for example, the plant manager, superintendent, or person of equivalent responsibility.

(14) "Battery" means a device consisting of one or more electrically connected electrochemical cells that is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus any connections, electrical and mechanical, as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery that has had the electrolyte removed.

(15) "Boiler" means an enclosed device using controlled flame combustion and having the [~~following~~]characteristics found in Subsections R315-260-10(c)(15)(i) and R315-260-10(c)(15)(ii):

(i)(A) The unit shall have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

(B) The unit's combustion chamber and primary energy recovery sections shall be of integral design. To be of integral design, the combustion chamber and the primary energy recovery sections, such as waterwalls and superheaters, shall be physically formed into one manufactured or assembled unit. A unit that has the combustion chamber and the primary energy recovery sections joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment, such as economizers or air preheaters, need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters, units that transfer energy directly to a process stream, and fluidized bed combustion units; and

(C) While in operation, the unit shall maintain a thermal energy recovery efficiency of at least 60 %, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

(D) The unit shall export and utilize at least 75 % of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the unit. Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps; or

(ii) The unit is one that the Board has determined, on a case-by-case basis, to be a boiler, after considering the standards in Section R315-260-32.

(16) "Carbon dioxide stream" means carbon dioxide that has been captured from an emission source, for example a power plant, plus incidental associated substances derived from the source materials and the capture process, and any substances added to the stream to enable or improve the injection process.

(17) "Carbon regeneration unit" means any enclosed thermal treatment device used to regenerate spent activated carbon.

(18) "Cathode ray tube" or "CRT" means a vacuum tube, composed primarily of glass, [~~which~~]that is the visual or video display component of an electronic device. A used, intact CRT means a CRT whose vacuum has not been released. A used, broken CRT means glass removed from its housing or casing whose vacuum has been released.

(19) "Central accumulation area" means any on-site hazardous waste accumulation area with hazardous waste accumulating in units subject to either Section R315-262-16, for small quantity generators, or Section R315-262-17, for large quantity generators. A central accumulation area at an eligible academic entity that chooses to operate under Sections R315-262-200 through R315-262-216 is also subject to Section R315-262-211 if accumulating unwanted material or hazardous waste, or both.

(20) "Certification" means a statement of professional opinion based upon knowledge and belief.

(21) "Closed portion" means that portion of a facility that an owner or operator has closed in accordance with the approved facility closure plan and any applicable closure requirements. See also "active portion" and "inactive portion."[~~.~~]

(22) "Component" means either the tank or ancillary equipment of a tank system.

(23) "Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

(24) "Contained" means held in a unit, including a land-based unit as defined in Section R315-260-10, that meets the [~~following~~]criteria found in Subsections R315-260-10(c)(24)(i) through R315-260-10(c)(24)(iv):

(i) the unit is in good condition, with no leaks or other continuing or intermittent unpermitted releases of the hazardous secondary materials to the environment, and is designed, as appropriate for the hazardous secondary materials, to prevent releases of hazardous secondary materials to the environment. Unpermitted releases are releases that are not covered by a permit, such as a permit to discharge to water or air, and may include; releases through surface transport by precipitation run-off, releases to soil and ground water, wind-blown dust, fugitive air emissions, and catastrophic unit failures;

(ii) the unit is properly labeled or otherwise has a system, such as a log, to immediately identify the hazardous secondary materials in the unit;

(iii) the unit holds hazardous secondary materials that are compatible with other hazardous secondary materials placed in the unit and is compatible with the materials used to construct the unit and addresses any potential risks of fires or explosions; and

(iv) hazardous secondary materials in units that meet the applicable requirements of Rule R315-264 or R315-265 are presumptively contained.

(25) "Container" means any portable device [~~in which a material~~]that is used to store[~~d~~], transport[~~ed~~], treat[~~ed~~], dispose[~~d~~] of, or otherwise handle[~~d~~] a material.

(26) "Containment building" means a hazardous waste management unit that is used to store or treat hazardous waste under Sections R315-264-1100 through R315-264-1102 or Sections R315-265-1100 through R315-265-1102.

(27) "Contingency plan" means a document setting out an organized, planned, and coordinated course of action to be followed [~~in case of~~]if a fire, explosion, or release of hazardous waste or hazardous waste constituents [~~that~~]could threaten human health or the environment.

(28) "Corrosion expert" means a person who, by reason of their knowledge of the physical sciences and the principles of engineering and mathematics, acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. A corrosion expert shall be certified as being qualified by the National Association of Corrosion Engineers (NACE) or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control on buried or submerged metal piping systems and metal tanks.

(29) "CRT collector" means a person who receives used, intact CRTs for recycling, repair, resale, or donation.

(30) "CRT exporter" means any person in the United States who initiates a transaction to send used CRTs outside the United States or its territories for recycling or reuse, or any intermediary in the United States arranging for export.

(31) "CRT glass manufacturer" means an operation or part of an operation that uses a furnace to manufacture CRT glass.

(32) "CRT processing" means conducting each of the [~~following~~]activities listed in Subsections R315-260-10(c)(32)(i) through R315-260-10(c)(32)(iii):

(i) receiving broken or intact CRTs; and

(ii) intentionally breaking intact CRTs or further breaking or separating broken CRTs; and

(iii) sorting or otherwise managing glass removed from CRT monitors.

(33) "Designated facility" means:

(i) a hazardous waste treatment, storage, or disposal facility that:

(A) has received a permit, or interim status, in accordance with the requirements of Rules R315-270 and R315-124;

(B) has received a permit, or interim status, from a state authorized in accordance with 40 CFR 271; or

(C) is regulated under Subsection R315-261-6(c)(2) or Section R315-266-70; and

(D) that has been designated on the manifest by the generator pursuant to Section R315-262-20.

(ii) "Designated facility" also means a generator site designated on the manifest to receive its waste as a return shipment from a facility that has rejected the waste in accordance with Subsection R315-264-72(f) or R315-265-72(f).

(iii) If a waste is destined to a facility in an authorized state that has not yet received authorization to regulate that particular waste as hazardous, then the designated facility shall be a facility allowed by the receiving state to accept the waste.

(34) "Destination facility" means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in Subsections R315-273-13(a) and R315-273-13(c) and Section R315-273-33. A facility [~~at which~~]where a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.

(35) "Dike" means an embankment or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids, or other materials.

(36) "Dioxins and furans (D/F)" means tetra, penta, hexa, hepta, and octa-chlorinated dibenzo dioxins and furans.

(37) "Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of hazardous waste into or on any land or water.

(38) "Disposal facility" means a facility or part of a facility [~~at which~~]where hazardous waste is intentionally placed into or on any land or water, and [~~at which~~]where waste will remain after closure. The term disposal facility does not include a corrective action management unit [~~into which~~]where remediation wastes are placed.

(39) "Division" means the Division of Waste Management and Radiation Control.

(40) "Drip pad" is an engineered structure consisting of a curbed, free-draining base, constructed of non-earthen materials and designed to convey preservative kick-back or drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

(41) "Electronic import[-] export reporting compliance date" means the date that EPA announces in the Federal Register, on or after which exporters, importers, and receiving facilities are required to submit certain export and import related documents to EPA using EPA's Waste Import Export Tracking System, or its successor system.

(42) "Elementary neutralization unit" means a device that:

(i) is used for neutralizing wastes that are hazardous only because they exhibit the corrosivity characteristic defined in Section R315-261-22, or they are listed in Sections R315-261-30 through R315-261-35 only for this reason; and

(ii) meets the definition of tank, tank system, container, transport vehicle, or vessel in Section R315-260-10.

(43) "Electronic manifest, or e-Manifest" means the electronic format of the hazardous waste manifest that is received from EPA's national e-Manifest system and transmitted electronically to the system, and that is the legal equivalent of EPA Forms 8700-22, Manifest, and 8700-22A, Continuation Sheet.

(44) "Electronic Manifest System, or e-Manifest System" means EPA's national information technology system [~~through which~~]where the electronic manifest may be procured, completed, transmitted, and distributed to users of the electronic manifest and to regulatory agencies.

(45) "EPA hazardous waste number" means the number assigned by EPA to each hazardous waste listed in Sections R315-261-30 through R315-261-35 and to each characteristic identified in Sections R315-261-20 through R315-261-24.

(46) "EPA identification number" means the number assigned by EPA to each generator, transporter, and treatment, storage, or disposal facility.

(47) "EPA region" means the states and territories found in any one of the [~~following~~]ten regions listed in Subsections R315-260-10(c)(47)(i) through R315-260-10(c)(47)(x):

(i) Region I-Maine, Vermont, New Hampshire, Massachusetts, Connecticut, and Rhode Island.

(ii) Region II-New York, New Jersey, Commonwealth of Puerto Rico, and the [~~U.S.~~]US Virgin Islands.

(iii) Region III-Pennsylvania, Delaware, Maryland, West Virginia, Virginia, and the District of Columbia.

(iv) Region IV-Kentucky, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina, and Florida.

(v) Region V-Minnesota, Wisconsin, Illinois, Michigan, Indiana, and Ohio.

(vi) Region VI-New Mexico, Oklahoma, Arkansas, Louisiana, and Texas.

(vii) Region VII-Nebraska, Kansas, Missouri, and Iowa.

(viii) Region VIII-Montana, Wyoming, North Dakota, South Dakota, Utah, and Colorado.

(ix) Region IX-California, Nevada, Arizona, Hawaii, Guam, American Samoa, Commonwealth of the Northern Mariana Islands.

(x) Region X-Washington, Oregon, Idaho, and Alaska.

(48) "Equivalent method" means any testing or analytical method approved by the director under Sections R315-260-20 and R315-260-21.

(49) "Existing hazardous waste management (HWM) facility" or "existing facility" means a facility that was in operation or commenced construction on or before November 19, 1980. A facility has commenced construction if:

(i) the owner or operator has received the federal, state and local approvals or permits necessary to begin physical construction; and either

(ii)(A) a continuous on-site, physical construction program has begun; or

(B) the owner or operator has entered into contractual obligations, which cannot be cancel[~~l~~]ed or modified without substantial loss, for physical construction of the facility to be completed within a reasonable time.

(50) "Existing portion" means that land surface area of an existing waste management unit, included in the original Part A permit application, [~~on which~~]where wastes have been placed before the issuance of a permit.

(51) "Existing tank system" or "existing component" means a tank system or component that is used for the storage or treatment of hazardous waste and that is in operation, or [~~for which~~]installation has commenced on or before July 14, 1986, or December 16, 1988 for purposes of implementing the non-HSWA requirements of the tank regulations as promulgated by EPA on July 14, 1986, 51 FR 25470, as they have been incorporated into the corresponding rules of Title R315. A non-HSWA existing tank system or non-HSWA tank component is one that does not implement any of the requirements of the federal Hazardous and Solid Waste Amendments of 1984 (HSWA) as identified in Table 1 of 40 CFR 271.1. Installation shall be considered to have commenced if the owner or operator has received any federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system and if either:

(i) a continuous on-site physical construction or installation program has begun; or

(ii) the owner or operator has entered into contractual obligations, which cannot be cancel[~~l~~]ed or modified without substantial loss, for physical construction of the site or installation of the tank system to be completed within a reasonable time.

(52) "Explosives or munitions emergency" means a situation involving the suspected or detected presence of unexploded ordnance (UXO), damaged or deteriorated explosives or munitions, an improvised explosive device (IED), other potentially explosive material or device, or other potentially harmful military chemical munitions or device, that creates an actual or potential imminent threat to human health, including safety, or the environment, including property, as determined by an explosives or munitions emergency response specialist. These situations may require immediate and expeditious action by an explosives or munitions emergency response specialist to control, mitigate, or eliminate the threat.

(53) "Explosives or munitions emergency response" means any immediate response activities by an explosives and munitions emergency response specialist to control, mitigate, or eliminate the actual or potential threat encountered during an explosives or munitions emergency. An explosives or munitions emergency response may include in-place render-safe procedures; treatment or destruction of the explosives or munitions or transporting those items to another location to be made safe, or both; treated, or destroyed. Any reasonable delay in the completion of an explosives or munitions emergency response caused by a necessary, unforeseen, or uncontrollable circumstance will not [~~terminate~~]end the explosives or munitions emergency. Explosives and munitions emergency responses can occur on either public or private lands and are not limited to responses at RCRA facilities.

(54) "Explosives or munitions emergency response specialist" means an individual trained in chemical or conventional munitions or explosives handling, transportation, render-safe procedures, or destruction techniques. Explosives or munitions emergency response specialists include Department of Defense (DOD) emergency explosive ordnance disposal (EOD), technical escort unit (TEU), and DOD-certified civilian or contractor personnel; and other federal, state, or local government, or civilian personnel similarly trained in explosives or munitions emergency responses.

(55) "Facility" means:

(i) Any contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste, or for managing hazardous secondary materials before reclamation. A facility may consist of several treatment, storage, or disposal operational units, for example, one or more landfills, surface impoundments, or combinations of them.

(ii) For implementing corrective action under Section R315-264-101, any contiguous property under the control of the owner or operator seeking a permit under Section 19-6-108. This definition also applies to facilities implementing corrective action under Section R315-263-31 and Rule R315-101.

(iii) [~~Notwithstanding Subsection R315-260-10(c)(55)(ii), a~~]A remediation waste management site is not a facility that is subject to Section R315-264-101, but is subject to corrective action requirements if the site is located within such a facility.

(56) "Federal agency" means any department, agency, or other instrumentality of the federal government, any independent agency or establishment of the federal government including any government corporation, and the Government Printing Office.

(57) "Federal, state and local approvals or permits necessary to begin physical construction" means permits and approvals required under federal, state, or local hazardous waste control statutes, rules, regulations, or ordinances.

(58) "Final closure" means the closure of each hazardous waste management unit at the facility in accordance with any applicable closure requirements so that hazardous waste management activities under Rules R315-264 and R315-265 are no longer conducted at the facility unless subject to the provisions in Sections R315-262-16 and R315-262-17.

(59) "Food-chain crops" means tobacco, crops grown for human consumption, and crops grown for feed for animals whose products are consumed by humans.

(60) "Free liquids" means liquids that readily separate from the solid portion of a waste under ambient temperature and pressure.

(61) "Freeboard" means the vertical distance between the top of a tank or surface impoundment dike, and the surface of the waste contained therein.

(62) "Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in Rule R315-261 or whose act first causes a hazardous waste to become subject to regulation.

(63) "Ground water" means water below the land surface in a zone of saturation.

(64) "Hazard class" means:

(i) the DOT hazard class identified in 49 CFR 172; and

(ii) if the DOT hazard class is "OTHER REGULATED MATERIAL," ORM, the EPA hazardous waste characteristic exhibited by the waste and identified in Sections R315-261-20 through R315-261-24.

(65) "Hazardous secondary material" means a secondary material, for example, spent material, by-product, or sludge, which if discarded, would be identified as hazardous waste under Rule R315-261.

(66) "Hazardous secondary material generator" means any person whose act or process produces hazardous secondary materials at the generating facility. For purposes of Subsection R315-260-10(c)(66), "generating facility" means any contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator. For the purposes of Subsections R315-261-2(a)(2)(ii) and R315-261-4(a)(23), a facility that collects hazardous secondary materials from other persons is not the hazardous secondary material generator.

(67) "Hazardous waste constituent" means a constituent that caused the Board to list the hazardous waste in Sections R315-261-30 through R315-261-35, or a constituent listed in [~~t~~]Table 1 of Section R315-261-24.

(68) "Hazardous waste management unit" is a contiguous area of land [~~on or in which~~]that hazardous waste is placed on or in, or the largest area [~~in which~~]where there is significant likelihood of mixing hazardous waste constituents in the area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system, and a container storage area. A container alone does not constitute a unit. The unit includes containers and the land or pad [~~upon which~~]where they are placed.

(69) "In operation" refers to a facility that is treating, storing, or disposing of hazardous waste.

(70) "Inactive portion" means that portion of a facility that is not operated after November 19, 1980. See also "active portion" and "closed portion."[~~.~~]

(71) "Incinerator" means any enclosed device that:

(i) uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or

(ii) meets the definition of infrared incinerator or plasma arc incinerator.

(72) "Incompatible waste" means a hazardous waste that is unsuitable for:

(i) placement in a particular device or facility because it may cause corrosion or decay of containment materials, for example, container inner liners or tank walls;

(ii) commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes, or gases, or flammable fumes or gases; or

(iii) see Appendix V to Rule R315-264 in Section R315-264-1[~~1~~]405 and Appendix V to Rule R315-265 in Section R315-265-1400 for examples.

(73) "Individual generation site" means the contiguous site [~~at or on which~~]where one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

(74) "Industrial furnace" means any of the [~~following~~]enclosed devices listed in Subsections R315-260-10(c)(74)(i) through R315-260-10(c)(74)(xiii) that are integral components of manufacturing processes and that use thermal treatment to accomplish recovery of materials or energy:

(i) cement kilns;

(ii) lime kilns;

(iii) aggregate kilns;

(iv) phosphate kilns;

(v) coke ovens;

(vi) blast furnaces;

(vii) smelting, melting and refining furnaces, including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machine, roasters, and foundry furnaces;

(viii) titanium dioxide chloride process oxidation reactors;

(ix) methane reforming furnaces;

(x) pulping liquor recovery furnaces;

(xi) combustion devices used in the recovery of sulfur values from spent sulfuric acid;

(xii) halogen acid furnaces (HAFs) for the production of acid from halogenated hazardous waste generated by chemical production facilities where the furnace is located on the site of a chemical production facility, the acid product has a halogen acid content of at least 3%, the acid product is used in a manufacturing process, and, except for hazardous waste burned as fuel, hazardous waste fed to the furnace has a minimum halogen content of 20% as-generated; and

(xiii) other devices as the Board may, after notice and comment, add to this list on the basis of one or more of the[~~following~~] factors listed in Subsections R315-260-10(c)(74)(xiii)(A) through R315-260-10(c)(74)(xiii)(F):

(A) the design and use of the device primarily to accomplish recovery of material products;

(B) the use of the device to burn or reduce raw materials to make a material product;

(C) the use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;

(D) the use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product;

(E) the use of the device in common industrial practice to produce a material product; and

(F) other factors, as appropriate.

(75) "Infrared incinerator" means any enclosed device that uses electric powered resistance heaters as a source of radiant heat followed by an afterburner using controlled flame combustion and that is not listed as an industrial furnace.

(76) "Inground tank" means a device meeting the definition of "tank" in Section R315-260-10 that has a portion of the tank wall that is situated to any degree within the ground preventing visual inspection of that external surface area of the tank that is in the ground.

(77) "Injection well" means a well that fluids are injected into. See also "underground injection."[~~,~~]

(78) "Inner liner" means a continuous layer of material placed inside a tank or container that protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

(79) "Installation inspector" means a person who, by reason of their knowledge of the physical sciences and the principles of engineering, acquired by a professional education and related practical experience, is qualified to supervise the installation of tank systems.

(80) "Intermediate facility" means any facility that stores hazardous secondary materials for more than 10 days, other than a hazardous secondary material generator or reclaimer of hazardous secondary material.

(81) "International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

(82) "Lamp," also referred to as "universal waste lamp,"[~~,~~] is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include; fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

(83) "Land-based unit" means an area where hazardous secondary materials are placed in or on the land before recycling. This definition does not include land-based production units.

(84) "Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and that is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.

(85) "Landfill cell" means a discrete volume of a hazardous waste landfill that uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

(86) "Land treatment facility" means a facility or part of a facility where hazardous waste is applied onto or incorporated into the soil surface, these facilities are disposal facilities if the waste will remain after closure.

(87) "Large quantity generator" is a generator who generates any of the [~~following~~]amounts listed in Subsections R315-260-10(c)(87)(i) through R315-260-10(c)(87)(iii) in a calendar month:

(i) greater than or equal to 1,000 kilograms, 2,200 lbs, of non-acute hazardous waste;

(ii) greater than one kilogram, 2.2 lbs, of acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e); or

(iii) greater than 100 kilograms, 220 lbs, of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e).

(88) "Leachate" means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

(89) "Leak detection system" means a system capable of detecting the failure of either the primary or secondary containment structure or the presence of a release of hazardous waste or accumulated liquid in the secondary containment structure. A leak detection system shall use operational controls, for example daily visual inspections for releases into the secondary containment system of aboveground tanks, or consist of an interstitial monitoring device designed to detect continuously and automatically the failure of the primary or secondary containment structure or the presence of a release of hazardous waste into the secondary containment structure.

(90) "Liner" means a continuous layer of natural or man-made materials, beneath or on the sides of a surface impoundment, landfill, or landfill cell, that restricts the downward or lateral escape of hazardous waste, hazardous waste constituents, or leachate.

(91) "Management" or "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous waste.

(92) "Manifest" is defined in Subsection 19-6-102(14) and is further defined as the shipping document EPA Form 8700-22, including, if necessary, EPA Form 8700-22A, or the electronic manifest, originated and signed in accordance with the applicable requirements of Rules R315-262 through R315-265.

(93) "Manifest tracking number" means the alphanumeric identification number that is a unique three letter suffix preceded by nine numerical digits, that is pre-printed in Item 4 of the Manifest by a registered source.

(94) "Mercury-containing equipment" means a device or part of a device, including thermostats, but excluding batteries and lamps, that contains elemental mercury integral to its function.

(95) "Military munitions" means the ammunition products and components produced or used by or for the [~~U.S.~~]US [~~Department of Defense~~]DOD or the [~~U.S.~~]US Armed Services for national defense and security, including military munitions under the control of the [~~Department of Defense~~]DOD, the [~~U.S.~~]US Coast Guard, the [~~U.S.~~]US Department of Energy (DOE), and National Guard personnel. The term military munitions includes: confined gaseous, liquid, and solid propellants, explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries used by DOD components, including bulk explosives and chemical warfare agents, chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges, and devices and components. Military munitions do not include wholly inert items, improvised explosive devices, and nuclear weapons, nuclear devices, and nuclear components. However, the term does include non-nuclear components of nuclear devices, managed under DOE's nuclear weapons program after any required sanitization operations under the Atomic Energy Act of 1954, as amended, have been completed.

(96) "Mining overburden returned to the mine site" means any material overlying an economic mineral deposit that is removed to gain access to that deposit and is then used for reclamation of a surface mine.

(97) "Miscellaneous unit" means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 CFR 146, containment building, corrective action management unit, unit eligible for a research, development, and demonstration permit under Section R315-270-65, or staging pile.

(98) "Monitoring" means any procedures used to systematically inspect and collect data on operational parameters of the facility or on the quality of the air, ground water, surface water, or soils.

(99) "Movement" means that hazardous waste transported to a facility in an individual vehicle.

(100) "New hazardous waste management facility" or "new facility" means a facility that began operation, or commenced construction after November 19, 1980. See also "Existing hazardous waste management facility."[~~,~~]

(101) "New tank system" or "new tank component" means a tank system or component that will be used for the storage or treatment of hazardous waste and commenced installation after July 14, 1986; except, however, for purposes of Subsections R315-264-193(g)(2) and R315-265-193(g)(2), a new tank system is one that commences construction after July 14, 1986, or December 16, 1988 for purposes of implementing the non-HSWA requirements of the tank regulations as promulgated by EPA on July 14, 1986, 51 FR 25470, as they have been incorporated into the corresponding rules of Title R315; except, however, for purposes of Subsection R315-265-193(g)(2) and Subsection R315-264-193(g)(2), a new tank system is one that commences construction after July 14, 1986. A non-HSWA new tank system or non-HSWA new tank component is one that does not implement any of the requirements of the federal Hazardous and Solid Waste Amendments of 1984 (HSWA) as identified in Table 1 of 40 CFR 271.1. See also "existing tank system."

(102) "No free liquids, as used in Subsections R315-261-4(a)(26) and R315-261-4(b)(18)", means that solvent-contaminated wipes may not contain free liquids as determined by Method 9095B, Paint Filter Liquids Test, included in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, and that there is no free liquid in the container holding the wipes. No free liquids may also be determined using another standard or test method as defined by the director.

(103) "Non-acute hazardous waste" means any hazardous wastes that are not acute hazardous waste, as defined in Section R315-260-10.

(104) "On ground tank" means a device meeting the definition of "tank" in Section R315-260-10 and that is situated so that the bottom of the tank is at the level of the adjacent surrounding surface so that the external tank bottom cannot be visually inspected.

(105) "On-site" means the same or geographically contiguous property that may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a cross[~~-~~]roads intersection, and access is by crossing as opposed to going along, the right-of-way. Non-contiguous properties owned by a person but connected by a right-of-way that the person controls and the public does not have access, is also considered on-site property.

(106) "Open burning" means the combustion of any material without the [~~following~~]characteristics listed in Subsections R315-260-10(c)(106)(i) through R315-260-10(c)(106)(iii):

(i) control of combustion air to maintain adequate temperature for efficient combustion;

(ii) containment of the combustion-reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(iii) control of emission of the gaseous combustion products. See also "incineration" and "thermal treatment."[~~,~~]

(107) "Operator" means the person responsible for the overall operation of a facility.

(108) "Owner" means the person who owns a facility or part of a facility.

(109) "Partial closure" means the closure of a hazardous waste management unit in accordance with the applicable closure requirements of Rules R315-264 and R315-265 at a facility that contains other active hazardous waste management units. For example, partial closure may include the closure of a tank, including its associated piping and underlying containment systems, landfill cell, surface impoundment, waste pile, or other hazardous waste management unit, while other units of the facility continue to operate.

(110) "Polychlorinated biphenyl, PCB" and "PCBs" means any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances that contain the substance. PCB and PCBs as contained in PCB items are defined in Section R315-260-10. For any purposes under Rules R315-260 through R315-266, R315-268, R315-270, R315-273, R315-15, and R315-101, inadvertently generated non-Aroclor PCBs are defined as the total PCBs calculated following division of the quantity of monochlorinated biphenyls by 50 and dichlorinated biphenyls by 5.

(111) "PCB Item" means any PCB Article, PCB Article Container, PCB Container, PCB Equipment, or anything that deliberately or unintentionally contains or has as a part of it any PCB or PCBs.

(112) "Permit" means the plan approval as required by Subsection 19-6-108(3)(a), or equivalent control document issued by the director to implement the requirements of the Utah Solid and Hazardous Waste Act;

(113) "Permittee" is defined in Subsection 19-6-102(18) and includes any person who has received an approval of a hazardous waste operation plan under Section 19-6-108 and Rule R315-262 or a federal RCRA permit for a treatment, storage, or disposal facility.

(114) "Person" means an individual, trust, firm, joint stock company, federal agency, corporation, including a government corporation, partnership, association, state, municipality, commission, political subdivision of a state, or any interstate body.

(115) "Personnel" or "facility personnel" means any person who works at, or oversees the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance with the requirements of Rule R315-264 or R315-265.

(116) "Pesticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(i) is a new animal drug under FFDCA Section 201(w);

(ii) is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug; or

(iii) is an animal feed under FFDCA Section 201(x) that bears or contains any substances described by Subsection R315-260-10(c)(116)(i) or R315-260-10(c)(116)(ii).

(117) "Pile" means any non-containerized accumulation of solid, non-flowing hazardous waste that is used for treatment or storage and that is not a containment building.

(118) "Plasma arc incinerator" means any enclosed device using a high intensity electrical discharge or arc as a source of heat followed by an afterburner using controlled flame combustion and that is not listed as an industrial furnace.

(119) "POHCs" means principle organic hazardous constituents.

(120) "Point source" means any discernible, confined, and discrete conveyance, including any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, [~~from which~~]where pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(121) "Precipitation run-off" means water generated from naturally occurring storm events. If the precipitation run-off has been in contact with a waste defined in Sections R315-261-20 through R315-261-24, it qualifies as "precipitation run-off" if the water does not exhibit any of the characteristics identified in Sections R315-261-20 through R315-261-24. If the precipitation run-off has been in contact with a waste listed in Sections R315-261-30 through R315-261-35, then it qualifies as "precipitation run-off" if the water has been excluded under Section R315-260-22. Water containing any leachate does not qualify as "precipitation run-off."[~~.~~]

(122) "Publicly owned treatment works" or "POTW" means any device or system used in the treatment, including recycling and reclamation, of municipal sewage or industrial wastes of a liquid nature that is owned by the state or a political subdivision within the state. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

(123) "Qualified Ground Water Scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and has sufficient training and experience in ground water hydrology and related fields as may be demonstrated by state registration, professional certifications, or completion of accredited university courses that enable that individual to make sound professional judgments regarding ground water monitoring and contaminant fate and transport.

(124) "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. Section 6901 et seq.

(125) "Recognized trader" means a person domiciled in the United States, by site of business, who acts to arrange and facilitate transboundary movements of wastes destined for recovery or disposal operations, either by purchasing from and subsequently selling to United States and foreign facilities, or by acting under arrangements with a United States waste facility to arrange for the export or import of the wastes.

(126) "Remanufacturing" means processing a higher-value hazardous secondary material to manufacture a product that serves a similar functional purpose as the original commercial-grade material. For this definition, a hazardous secondary material is considered higher-value if it was generated from the use of a commercial-grade material in a manufacturing process and can be remanufactured into a similar commercial-grade material.

(127) "Remediation waste" means any solid and hazardous wastes, and any media, including ground water, surface water, soils, and sediments, and debris, that are managed for implementing cleanup.

(128) "Remediation waste management site" means a facility where an owner or operator is or will be treating, storing, or disposing of hazardous remediation wastes. A remediation waste management site is not a facility that is subject to corrective action under Section R315-264-101, but is subject to corrective action requirements if the site is located in such a facility.

(129)(i) "Replacement unit" means a landfill, surface impoundment, or waste pile unit:

(A) [~~from which~~]where the waste or a substantial amount of the waste is removed; and

(B) that is subsequently reused to treat, store, or dispose of hazardous waste.

(ii) "Replacement unit" does not apply to a unit [~~from which~~]where waste is removed during closure, if the subsequent reuse solely involves the disposal of waste from that unit and other closing units or corrective action areas at the facility, in accordance with a closure plan approved by the director or a corrective action approved by the director.

(130) "Representative sample" means a sample of a universe or whole, for example, waste pile, lagoon, ground water, that can be expected to exhibit the average properties of the universe or whole.

(131) "Run-off" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

(132) "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(133) "Saturated zone" or "zone of saturation" means that part of the earth's crust where each void is filled with water.

(134) "Sludge" means any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

(135) "Sludge dryer" means any enclosed thermal treatment device that is used to dehydrate sludge and that has a maximum total thermal input, excluding the heating value of the sludge itself, of 2,500 Btu per lb of sludge treated on a wet-weight basis.

(136) "Small Quantity Generator" is a generator who generates the [~~following~~]amounts listed in Subsections R315-260-10(c)(136)(i) through R315-260-10(c)(136)(iii) in a calendar month:

(i) greater than 100 kilograms, 220 lbs, but less than 1,000 kilograms, 2,200 lbs, of non-acute hazardous waste; and

(ii) less than or equal to one kilogram, 2.2 lbs, of acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e); and

(iii) less than or equal to 100 kilograms, 220 lbs, of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e).

(137) "Solid Waste Management Unit" means any discernible unit [~~at which~~]where solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. These units include any area at a facility [~~at which~~]where solid wastes have been routinely and systematically released.

(138) "Solvent-contaminated wipe" means:

(i) a wipe that, after use or after cleaning up a spill, meets one or more of the [~~following~~]criteria listed in Subsections R315-260-10(c)(138)(i)(A) through R315-260-10(c)(138)(i)(C):

(A) Contains one or more of the F001 through F005 solvents listed in Section R315-261-31 or the corresponding P- or U- listed solvents found in Section R315-261-33.

(B) Exhibits a hazardous characteristic found in Sections R315-261-20 through R315-261-24 if that characteristic results from a solvent listed in Rule R315-261.

(C) Exhibits only the hazardous waste characteristic of ignitability found in Section R315-261-21 due to the presence of one or more solvents that are not listed in Rule R315-261.

(ii) Solvent-contaminated wipes that contain listed hazardous waste other than solvents, or exhibit the characteristic of toxicity, corrosivity, or reactivity due to contaminants other than solvents, are not eligible for the exclusions at Subsections R315-261-4(a)(26) and R315-261-4(b)(18).

(139) "Sorbent" means a material that is used to soak up free liquids by either adsorption or absorption, or both.

(140) "Sorb" means to either adsorb or absorb, or both.

(141) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose [~~for which~~]that it was produced for without processing.

(142) "Spill" means the accidental discharging, spilling, leaking, pumping, pouring, emitting, emptying, releasing, or dumping of hazardous wastes or materials that, if spilled, become hazardous wastes, into or on any land or water.

(143) "Staging pile" means an accumulation of solid, non-flowing remediation waste, as defined in Section R315-260-10, that is not a containment building and that is used only during remedial operations for temporary storage at a facility. Staging piles shall be designated by the director according to the requirements of Section R315-264-554.

(144) "State" means the state of Utah.

(145) "Storage" is defined in Subsection 19-6-102(20) and includes the holding of hazardous waste for a temporary period, when at the end of [~~which~~]the period the hazardous waste is treated, disposed of, or stored elsewhere.

(146) "Sump" means any pit or reservoir that meets the definition of tank and those troughs or trenches connected to it that serve to collect hazardous waste for transport to hazardous waste storage, treatment, or disposal facilities; except that as used in the landfill, surface impoundment, and waste pile rules, "sump" means any lined pit or reservoir that serves to collect liquids drained from a leachate collection and removal system or leak detection system for subsequent removal from the system.

(147) "Surface impoundment" or "impoundment" means a facility or part of a facility that is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials, although it may be lined with man-made materials, that is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and that is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

(148) "Tank" means a stationary device, designed to contain an accumulation of hazardous waste that is constructed primarily of non-earthen materials, for example, wood, concrete, steel, plastic, that provide structural support.

(149) "Tank system" means a hazardous waste storage or treatment tank and its associated ancillary equipment and containment system.

(150) "TEQ" means toxicity equivalence, the international method of relating the toxicity of various dioxin or furan congeners to the toxicity of 2,3,7,8-tetrachlorodibenzo-p-dioxin.

(151) "Thermal treatment" means the treatment of hazardous waste in a device that uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation, and microwave discharge. See also "incinerator" and "open burning."[~~.~~]

(152) "Thermostat" means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of Subsection R315-273-13(c)(2) or R315-273-33(c)(2).

(153) "Totally enclosed treatment facility" means a facility for the treatment of hazardous waste that is directly connected to an industrial production process and that is constructed and operated in a manner that prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe [~~in which~~]where waste acid is neutralized.

(154) "Transfer facility" means any transportation-related facility, including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste or hazardous secondary materials are held during the normal course of transportation.

(155) "Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body, for example, trailer or railroad freight car, is a separate transport vehicle.

(156) "Transportation" is defined in Subsection 19-6-102(23) and includes the movement of hazardous waste by air, rail, highway, or water.

(157) "Transporter" means a person engaged in the off-site transportation of hazardous waste by air, rail, highway, or water.

(158)(i) "Treatability study" means a study [~~in which~~]that subjects a hazardous waste [~~is subjected~~]to a treatment process to determine:

(A) whether the waste is amenable to the treatment process;

(B) what pretreatment, if any, is required;

(C) the optimal process conditions needed to achieve the desired treatment;

(D) the efficiency of a treatment process for a specific waste or wastes; or

(E) the characteristics and volumes of residuals from a particular treatment process.

(ii) Also included in this definition for the Subsections R315-261-4(e) and R315-261-4(f) exemptions are liner compatibility, corrosion, and other material compatibility studies and toxicological and health effects studies.

(iii) A "treatability study" is not a means to commercially treat or dispose of hazardous waste.

(159) "Treatment" is defined in Subsection 19-6-102(22) and includes any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize the waste, or so as to recover energy or material resources from the waste, or so as to make the waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

(160) "Treatment zone" means a soil area of the unsaturated zone of a land treatment unit [~~within which~~]where hazardous constituents are degraded, transformed, or immobilized.

(161) "Underground injection" means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. See also "injection well."[~~.~~]

(162) "Underground tank" means a device meeting the definition of "tank" in Section R315-260-10 whose entire surface area is totally below the surface of and covered by the ground.

(163) "Unfit-for use tank system" means a tank system that has been determined through an integrity assessment or other inspection to be no longer capable of storing or treating hazardous waste without posing a threat of release of hazardous waste to the environment.

(164) "United States" means the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the [~~U.S.~~]US Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

(165) "Universal waste" means any of the [~~following~~]hazardous wastes listed in Subsections R315-260-10(c)(165)(i) through R315-260-10(c)(165)(vi) that are managed under the universal waste requirements of Rule R315-273:

(i) batteries as described in Section R315-273-2;

(ii) pesticides as described in Section R315-273-3;

(iii) mercury-containing equipment as described in Section R315-273-4;

(iv) lamps as described in Section R315-273-5;

(v) aerosol cans as described in Section R315-273-6; and

(vi) antifreeze as described in Section R315-273-7.

(166)(i) "Universal waste handler" means:

(A) a generator of universal waste; or

(B) the owner or operator of a facility, including any contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.

(ii) "Universal waste handler" does not mean:

(A) a person who treats, except under Subsection R315-273-13(a) or R315-273-13(c), or R315-273-33(a) or R315-273-33(c), disposes of, or recycles, except under Subsection R315-273-13(f) or R315-273-33(f), universal waste; or

(B) a person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

(167) "Universal waste transporter" means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

(168) "Unsaturated zone" or "zone of aeration" means the zone between the land surface and the water table.

(169) "Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

(170) Used oil is defined in Subsection 19-6-703(19). Used oil includes engine oil, transmission fluid, compressor oils, metalworking oils, hydraulic oil, brake fluid, oils used as buoyants, lubricating greases, electrical insulating, and dialectic oils.

(171) "User of the electronic manifest system" means a hazardous waste generator, a hazardous waste transporter, an owner or operator of a hazardous waste treatment, storage, recycling, or disposal facility, or any other person that:

(i) is required to use a manifest to comply with:

(A) any federal or state requirement to track the shipment, transportation, and receipt of hazardous waste or other waste material that is shipped from the site of generation to an off-site designated facility for treatment, storage, recycling, or disposal; or

(B) any federal or state requirement to track the shipment, transportation, and receipt of rejected wastes or regulated container residues that are shipped from a designated facility to an alternative facility, or returned to the generator; and

(ii) elects to use the system to get, complete and [~~transmit~~]send an electronic manifest format supplied by the EPA electronic manifest system; or

(iii) elects to use the paper manifest form and submits to the system for data processing purposes a paper copy of the manifest, or data from a paper copy, in accordance with Subsection R315-264-71(a)(2)(v) or R315-265-71(a)(2)(v). These paper copies are submitted for data exchange purposes only and are not the official copies of record for legal purposes.

(172) "Very small quantity generator" is a generator who generates less than or equal to the [~~following~~]amounts listed in Subsections R315-260-10(c)(172)(i) through R315-260-10(c)(172)(iii) in a calendar month:

(i) one hundred kilograms, 220 lbs, of non-acute hazardous waste;

(ii) one kilogram, 2.2 lbs, of acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e); and

(iii) one hundred kilograms, 220 lbs, of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e).

(173) "Vessel" includes any description of watercraft, used or capable of being used as a means of transportation on the water.

(174) "Waste management area" means the limit projected in the horizontal plane of the area [~~on which~~]where waste will be placed during the active life of a regulated unit. The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit. If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

(175) "Wastewater treatment unit" means a device that:

(i) is part of a wastewater treatment facility that is subject to regulation under either Section 402 or Subsection 307(b) of the Clean Water Act;

(ii) receives and treats or stores an influent wastewater that is a hazardous waste as defined in Section R315-261-3, or that generates and accumulates a wastewater treatment sludge that is a hazardous waste as defined in Section R315-261-3, or treats or stores a wastewater treatment sludge that is a hazardous waste as defined in Section R315-261-3; and

(iii) meets the definition of tank or tank system in Section R315-260-10.

(176) "Water, bulk shipment" means the bulk transportation of hazardous waste that is loaded or carried on board a vessel without containers or labels.

(177) "Well" means any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

(178) "Well injection": See "underground injection"

(179) "Wipe" means a woven or non-woven shop towel, rag, pad, or swab made of wood pulp, fabric, cotton, polyester blends, or other material.

(180) "Zone of engineering control" means an area under the control of the owner or operator that, upon detection of a hazardous waste release, can be readily cleaned up before the release of hazardous waste or hazardous constituents to ground water or surface water.

KEY: hazardous waste
Date of Last Change: [~~January 13,~~] 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-1-301; 19-6-105; 19-6-106

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-261**	**Filing ID: 57493**

Agency Information

1. Title catchline:	Environmental Quality, Waste Management and Radiation Control, Waste Management	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, UT 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:
R315-261. General Requirements – Identification and Listing of Hazardous Waste
4. Purpose of the new rule or reason for the change:
In February of 1997, the EPA finalized a rulemaking known as the Military Munitions Rule. Authorized states were not required to adopt this rule because it was considered less stringent than existing regulations. At that time, Utah adopted a few of the rules. In July of 2023, comments were received from the EPA that Utah should adopt more of the regulations promulgated in the Military Munitions Rule because Utah had begun to regulate military facilities in ways that appeared to be consistent with these

regulations. Utah then conducted a review of the proposed regulations in the Military Munitions Rule and it was determined that some, but not all, of the proposed rules should be adopted resulting in an amendment to Rule R315-261.

In July of 2024, the EPA finalized rulemaking that integrates e-Manifest with hazardous waste exports and other manifest related reports, PCB manifest amendments, and technical corrections. This rulemaking amended federal regulations found in 40 CFR 261 in response to vacatur of certain provisions of the definition of solid waste that became effective in 2018. The conforming change removes language allowing for claims of confidentiality for export documents. The amendments clarify the type of address that must be provided on export documents and provide new instructions for documents and processes used for importing and exporting hazardous secondary materials and waste.

In December of 2024, the EPA finalized five regulatory amendments that had been withdrawn from a rulemaking in December of 2023. The amendments made technical corrections to various hazardous waste regulations including some in 40 CFR 261.

In October of 2024, the EPA finalized regulations for the management of certain hydrofluorocarbons and substitutes (ignitable spent refrigerants) under the American Innovation and Manufacturing Act of 2020. This rulemaking included amendments to rules regarding the recycling and disposal hydrofluorocarbons.

As an authorized state, Utah is required to maintain a program that is equivalent to the federal program and therefore, must amend Rule R315-261 to conform with the federal regulations.

5. Summary of the new rule or change:

Subsection R315-261-2(a)(2)(i)(D) is being added to the rule to state that a military munition identified as a solid waste in Section R315-266-202 is a discarded material.

Amendments are being made in Subsections R315-261-4(a)(25) and R315-261-39(a)(5) to state that the site address is required on export documents submitted to the EPA. Subsection R315-261-39(a)(5) is also being amended to update the requirements for submission of export documents.

Subsection R315-261-4(e)(1) is being amended to correct and replace references to other rules that are no longer correct.

Subsection R315-261-6(a)(2) is being amended to update the list of rule references to include new rules being adopted in Rule R315-266 for military munitions and ignitable spent refrigerants.

Subsection R315-261-6(a)(2)(v) is being added to include ignitable spent refrigerants as a recyclable materials and provide references to new rules in Rule R315-266.

Subsections R315-261-6(a)(3)(i)(A) and R315-261-6(a)(3)(i)(B) are being added to provide references to the appropriate rule sections for persons shipping or transporting materials for reclamation in a foreign country.

Sections R315-261-400 and R315-261-420 are being amended to state these rules apply to facilities that receive ignitable spent refrigerants.

The date of the version of Appendix IX adopted in Section R315-261-1093 is being updated to the current version.

Additionally, the Division of Waste Management and Radiation Control, Waste Management (Division) is correcting typographical and formatting errors in Rule R315-261.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

It is not anticipated that this rulemaking will result in any cost or savings to the state budget because the state does not manage military munitions, is not an importer or exporter of hazardous waste, and does not recycle ignitable spent refrigerants.

Any costs associated with new rules will be absorbed in the current agency budget.

B. Local governments:

It is not anticipated that this rulemaking will result in any cost or savings to local governments because there are no local governments in Utah that manage military munitions, import or export hazardous waste, or recycle ignitable spent refrigerants.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

It is not anticipated that the rulemaking regarding military munitions or import and export of hazardous waste will result in any cost or savings to small businesses that must comply with these rules because there are no small businesses in Utah engaged in these activities.

It is anticipated that the new rules regarding management of spent ignitable refrigerants will result in cost savings, however; compliance with the new rules is voluntary and it is unknown how many of the entities affected by the rule amendments will choose to comply with the new rules so it is not possible for the Division to determine the cost savings for any entity that chooses to comply with the new rules.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

It is not anticipated that the rulemaking regarding military munitions will result in any cost or savings to non-small businesses because there are no non-small businesses in Utah engaged in these activities.

It is anticipated that the new rules regarding management of spent ignitable refrigerants will result in cost savings, however; compliance with the new rules is voluntary and it is unknown how many of the entities affected by the rule amendments will choose to comply with the new rules so it is not possible for the Division to determine the cost savings for any entity that chooses to comply with the new rules.

There are three non-small businesses in Utah that are importers of hazardous waste. It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

It is not anticipated that the rulemaking regarding military munitions or import and export of hazardous waste will result in any cost or savings to persons other than small businesses, non-small businesses, state or local governments that must comply with these rules because there are no persons other than small businesses, non-small businesses, state or local governments in Utah engaged in these activities.

It is anticipated that the new rules regarding management of spent ignitable refrigerants will result in cost savings, however; compliance with the new rules is voluntary and it is unknown how many of the entities affected by the rule amendments will choose to comply with the new rules so it is not possible for the Division to determine the cost savings for any entity that chooses to comply with the new rules.

F. Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs above those costs that are already in place for affected persons who must comply with these rules except for the cost to the three non-small businesses in Utah that are importers of hazardous waste.

It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$3,744	$3,744	$3,744	$3,744	$3,744
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$3,744**	**$3,744**	**$3,744**	**$3,744**	**$3,744**

Fiscal Benefits	FY2026	FY2027	FY2028	FY2029	FY2030
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-6-105	Section 19-6-106	

Incorporation by Reference Information

8. Incorporation by Reference:

A. This rule adds or updates the following title of material incorporated by reference (a copy of the material incorporated by reference must be submitted to the Office of Administrative Rules. *If none, leave blank*)**:**

Official Title of Materials Incorporated (from title page)	Appendix IX to Part 261 – Wastes Excluded Under 260.20 and 260.22, Table 1 – Waste Excluded from Non- Specific Sources
Publisher	United States Government
Issue Date	June 17, 2025

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.	
A. Comments will be accepted until:	10/31/2025

10. This rule change MAY become effective on:	11/17/2025
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	09/12/2025

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-261. General Requirements -- Identification and Listing of Hazardous Waste.
R315-261-2. Definition of Solid Waste.

(a)(1) A solid waste is any discarded material that is not excluded by Subsection R315-261-4(a) or that is not excluded under Sections R315-260-30 and R315-260-31 or that is not excluded by a non-waste determination under Sections R315-260-30 and R315-260-34.

(2)(i) A discarded material is any material [~~which~~]that is:

(A) [~~A~~]abandoned, as explained in Subsection R315-261-2(b); or

(B) [~~R~~]recycled, as explained in Subsection R315-261-2(c); or

(C) [~~C~~]considered inherently waste-like, as explained in Subsection R315-261-2(d); or

(D) a military munition identified as a solid waste in Section R315-266-202.

(b) Materials are solid waste if they are abandoned by being:

(1) [~~D~~]disposed of; or

(2) [~~B~~]burned or incinerated; or

(3) [~~A~~]accumulated, stored, or treated, but not recycled, before or in lieu of being abandoned by being disposed of, burned, or incinerated; or

(4) [~~S~~]sham recycled, as explained in Subsection R315-261-2(g).

(c) Materials are solid wastes if they are recycled[-], or accumulated, stored, or treated before recycling[-], as specified in Subsections R315-261-2(c)(1) through R315-261-2(c)(4).

(1) Used in a manner constituting disposal.

(i) Materials noted with a "*" in Column 1 of Table 1 are solid wastes [~~when~~]if they are:

(A) [~~A~~]applied to or placed on the land in a manner that constitutes disposal; or

(B) [~~U~~]used to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land, [~~(~~]in which cases the product itself remains a solid waste[~~)~~].

(ii) However, commercial chemical products listed in Section R315-261-33 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

(2) Burning for energy recovery.

(i) Materials noted with a "*" in column 2 of Table 1 are solid wastes [~~when~~]if they are:

(A) [~~B~~]burned to recover energy;

(B) [~~U~~]used to produce a fuel or are otherwise contained in fuels, in which cases the fuel itself remains a solid waste.

(ii) However, commercial chemical products listed in Section R315-261-33 are not solid wastes if they are themselves fuels.

(3) Reclaimed. Materials noted with a "-" in column 3 of Table 1 are not solid wastes [~~when~~]if reclaimed. Materials noted with an "*" in column 3 of Table 1 are solid wastes [~~when~~]if reclaimed unless they meet the requirements of Subsection[~~s~~] R315-261-4(a)(17), or R315-261-4(a)(23), R315-261-4(a)(24) or R35-261-4(a)(27).

(4) Accumulated speculatively. Materials noted with a "*" in column 4 of Table 1 are solid wastes [~~when~~]if accumulated speculatively.

Table 1

	Use constituting disposal, Subsection R315-261-2(c)(1)	Energy recovery/fuel, Subsection R315-261-2(c)(2)	Reclamation, Subsection R315-261-2(c)(3), except as provided in Subsection R315-261-4(a)(17), R315-261-4(a)(23), R315-261-4(a)(24), or R315-261-4(a)(27)	Speculative accumulation, Subsection R315-261-2(c)(4)
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges, listed in Section R315-261-31 or R315-261-32	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
By-products, listed in Section R315-261-31 or R315-261-32	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	-	(*)
Commercial chemical products listed in Section R315-261-33	(*)	(*)	-	-
Scrap metal that is not excluded under Subsection R315-261-4(a)(13)	(*)	(*)	(*)	(*)
Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" and "processed scrap metal" are defined in Section R315-261-1.				

[~~Table 1~~

~~Use Constituting Disposal 261-2(c)(1) Energy recovery/ fuel 261-2(c) Reclamation except as provided in 261-2(c)(3) Speculative accumulation 261-2(c)(4)~~

~~(2) 261.4(a)(17)~~
~~261.4(a)(23)~~
~~261.4(a)(24)~~
~~or~~
~~261.4(a)(27)~~

~~1~~	~~2~~	~~3~~	~~4~~
~~Spent Materials (*)~~	~~(*)~~	~~(*)~~	~~(*)~~
~~Sludges (listed in 261.31 or 261.32)~~	~~(*)~~	~~(*)~~	~~(*)~~
~~Sludges exhibiting a characteristic of hazardous waste~~	~~(*)~~	~~(*)~~	~~(*)~~
~~By products (listed in 261.31 or 261.32~~	~~(*)~~	~~(*)~~	~~(*)~~
~~By products exhibiting a characteristic of hazardous waste~~	~~(*)~~	~~(*)~~	~~(*)~~
~~Commercial chemical products listed in 261.33~~	~~(*)~~	~~(*)~~	
~~Scrap metal that is not excluded under 261.4(a)(13)~~	~~(*)~~	~~(*)~~	~~(*)~~

~~Note 1: All rule references in Table 1 are to R315.~~
~~Note 2: The terms "spent materials," "sludges," "by products," and "scrap metal" and "processed scrap metal" are defined in Section R315-261-1.~~
]

(d) Inherently waste-like materials. The [~~following~~]materials listed in Subsections R315-261-2(d)(1) and R315-261-2(d0(2) are solid wastes [~~when~~]if they are recycled in any manner:

(1) Hazardous Waste Nos. F020; F021, unless used as an ingredient to make a product at the site of generation; F022; F023; F026; and F028.

(2) Secondary materials fed to a halogen acid furnace that exhibit a characteristic of a hazardous waste or are listed as a hazardous waste as defined in Sections R315-261-20 through R315-261-24 and R315-261-30 through R315-261-35, except for brominated material that meets the [~~following~~]criteria listed in Subsections R315-261-2(d)(2)(i) through R315-261-2(d)(2)(iii):

(i) [~~T~~]the material shall contain a bromine concentration of at least 45%; and

(ii) [~~T~~]the material shall contain less than a total of 1% of toxic organic compounds listed in Rule R315-261 appendix VIII; and

(iii) [~~T~~]the material is processed continually on-site in the halogen acid furnace via direct conveyance, hard piping.

(3) The Board shall use the [~~following~~]criteria listed in Subsections R315-261-2(d)(3)(i) and R315-261-2(d)(3)(ii) to add wastes to Subsection R315-261-2(d)(1) or R315-261-2(d)(2):

(i)(A) [~~T~~]the materials are ordinarily disposed of, burned, or incinerated; or

(B) [~~T~~]the materials contain toxic constituents listed in appendix VIII of Rule R315-261 and these constituents are not ordinarily found in raw materials or products for which the materials substitute, [~~(~~]or are found in raw materials or products in smaller concentrations[~~)~~], and are not used or reused during the recycling process; and

(ii) [~~T~~]the material may pose a substantial hazard to human health and the environment [~~when~~]if recycled.

(e) Materials that are not solid waste [~~when~~]if recycled.

(1) Materials are not solid wastes [~~when~~]if they can be shown to be recycled by being:

(i) [~~U~~]used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

(ii) [~~U~~]used or reused as effective substitutes for commercial products; or

(iii) [~~R~~]returned to the original process from which they are generated, without first being reclaimed or land disposed. The material shall be returned as a substitute for feedstock materials. In cases where the original process to which the material is returned is a secondary process, the materials shall be managed [~~such~~]so that there is no placement on the land. In cases where the materials are generated and reclaimed within the primary mineral processing industry, the conditions of the exclusion found at Subsection R315-261-4(a)(17) apply rather than Subsection R315-261-2(e)(1)(iii).

(2) The [~~following~~]materials listed in Subsections R315-261-2(e)(2)(i) through R315-261-2(e)(2)(iv) are solid wastes, even if the recycling involves use, reuse, or return to the original process described in Subsections R315-261-2(e)(1)(i) through R315-261-2(e)(1)(iii):

(i) [~~M~~]materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

(ii) [~~M~~]materials burned for energy recovery, used to produce a fuel, or contained in fuels; or

(iii) [~~M~~]materials accumulated speculatively; or

(iv) [~~M~~]materials listed in Subsections R315-261-2(d)(1) and R315-261-2(d)(2).

(f) Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation. Respondents in actions to enforce rules implementing Sections 19-6-101 through 19-6-125 who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, shall demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they shall provide appropriate documentation, such as contracts showing that a second person uses the material as an ingredient in a production process, to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials shall show that they have the necessary equipment to [~~do so~~]recycle.

(g) Sham recycling. A hazardous secondary material found to be sham recycled is considered discarded and a solid waste. Sham recycling is recycling that is not legitimate recycling as defined in Section R315-260-43.

R315-261-4. Exclusions.

(a) Materials that are not solid wastes. The materials listed in Subsections R315-261-4(a)(1) through R315-261-4(a)(27) are not solid wastes for Rule R315-261:

(1)(i) domestic sewage; and

(ii) any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment, except as prohibited by Section R315-266-505 and Clean Water Act requirements at 40 CFR 403.5(b). "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

(2) Industrial wastewater discharges that are point source discharges subject to regulation under [~~s~~]Section 402 of the Clean Water Act, as amended. This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored, or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.

(3) Irrigation return flows.

(4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.

(5) Materials subjected to in[~~-~~] situ mining techniques that are not removed from the ground as part of the extraction process.

(6) Pulping liquors that is black liquor, that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless it is accumulated speculatively as defined in Subsection R315-261-1(c).

(7) Spent sulfuric acid used to produce virgin sulfuric acid provided it is not accumulated speculatively as defined in Subsection R315-261-1(c).

(8) Secondary materials that are reclaimed and returned to the original process or processes that they were generated in if they are reused in the production process provided:

(i) only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of conveyance;

(ii) reclamation does not involve controlled flame combustion, such as occurs in boilers, industrial furnaces, or incinerators;

(iii) the secondary materials are never accumulated in tanks for over 12 months without being reclaimed; and

(iv) the reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

(9)(i) Spent wood preserving solutions that have been reclaimed and are reused for their original intended purpose.

(ii) Wastewaters from the wood preserving process that have been reclaimed and are reused to treat wood.

(iii) Before reuse, the wood preserving wastewaters and spent wood preserving solutions described in Subsections R315-261-4(a)(9)(i) and R315-261-4(a)(9)(ii), so long as they meet the conditions contained in Subsections R315-261-4(a)(9)(iii)(A) through R315-261-4(a)(9)(iii)(E):

(A) The wood preserving wastewaters and spent wood preserving solutions are reused on-site at water borne plants in the production process for their original intended purpose.

(B) Before reuse, the wastewaters and spent wood preserving solutions are managed to prevent release to either land or groundwater or both.

(C) Any unit used to manage wastewaters or spent wood preserving solutions or both before reuse can be visually or otherwise determined to prevent releases.

(D) Any drip pad used to manage the wastewaters or spent wood preserving solutions or both before reuse complies with the standards in Sections R315-265-440 through R315-265-445, regardless of whether the plant generates a total of less than 100 kg/month of hazardous waste.

(E) Before operating pursuant to this exclusion, the plant owner or operator prepares a one-time notification stating that the plant intends to claim the exclusion, giving the date when the plant intends to begin operating under the exclusion, and containing the following language: "I have read the applicable regulation establishing an exclusion for wood preserving wastewaters and spent wood preserving solutions and understand it requires me to comply at all times with the conditions set out in the regulation." The plant shall maintain a copy of that document in its on-site records until closure of the facility. The exclusion applies so long as the plant meets each of the conditions. If the plant goes out of compliance with any condition, it may apply to the director for reinstatement. The director may reinstate the exclusion upon finding that the plant has returned to compliance with each of the conditions and that the violations are not likely to recur.

(10) EPA Hazardous Waste Nos. K060, K087, K141, K142, K143, K144, K145, K147, and K148, and any wastes from the coke by-products processes that are hazardous only because they exhibit the Toxicity Characteristic specified in Section R315-261-24, after generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar before the tar's

sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

(11) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums, if shipped and not land disposed before recovery.

(12)(i) Oil-bearing hazardous secondary materials that is sludges, by-products, or spent materials, that are generated at a petroleum refinery, SIC code 2911, and are inserted into the petroleum refining process, SIC code 2911-including distillation, catalytic cracking, fractionation, or thermal cracking units namely cokers, unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under Subsection R315-261-4(12)(i), provided the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the petroleum refinery when they are generated, or sent directly to another petroleum refinery and still be excluded under this provision. Except as provided in Subsection R315-261-4(a)(12)(ii), oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry namely from sources other than petroleum refineries, are not excluded under Section R315-261-4. Residuals generated from processing or recycling materials excluded under Subsection R315-261-4(a)(12)(i), if the materials as generated would have otherwise met a listing under Sections R315-261-30 through R315-261-35, are designated as F037 listed wastes if disposed of or intended for disposal.

(ii) Recovered oil that is recycled in the manner and with the conditions as described in Subsection R315-261-4(a)(12)(i). Recovered oil is oil that has been reclaimed from secondary materials, including wastewater, generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto, SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172. Recovered oil does not include oil-bearing hazardous wastes listed in Sections R315-261-30 through R315-261-35; however, oil recovered from these wastes may be considered recovered oil. Recovered oil does not include used oil as defined in Subsection 19-6-703(19).

(13) Excluded scrap metal includes processed scrap metal, unprocessed home scrap metal, and unprocessed prompt scrap metal being recycled.

(14) Shredded circuit boards being recycled provided they are:

(i) stored in containers sufficient to prevent a release to the environment before recovery; and

(ii) free of mercury switches, mercury relays and nickel-cadmium batteries and lithium batteries.

(15) Condensates derived from the overhead gases from kraft mill steam strippers that are used to comply with 40 CFR 63.446(e). The exemption applies only to combustion at the mill generating the condensates.

(16) Reserved.

(17) Spent materials, as defined in Section R315-261-1, other than hazardous wastes listed in Sections R315-261-30 through R315-261-35, generated within the primary mineral processing industry that minerals, acids, cyanide, water, or other values are recovered from by mineral processing or by beneficiation, provided:

(i) the spent material is legitimately recycled to recover minerals, acids, cyanide, water or other values;

(ii) the spent material is not accumulated speculatively; and

(iii) except as provided in Subsection R315-261-4(a)(17)(iv), the spent material is stored in tanks, containers, or buildings meeting the following minimum integrity standards: a building shall be an engineered structure with a floor, walls, and a roof each being made of non-earthen materials providing structural support, except smelter buildings may have partially earthen floors provided the secondary material is stored on the non-earthen portion, and have a roof suitable for diverting rainwater away from the foundation; a tank shall be free standing, not be a surface impoundment, as defined in Section R315-260-10, and be manufactured of a material suitable for containment of its contents; a container shall be free standing and be manufactured of a material suitable for containment of its contents. If tanks or containers contain any particulate that may be subject to wind dispersal, the owner or operator shall operate these units in a manner that controls fugitive dust. Tanks, containers, and buildings shall be designed, constructed, and operated to prevent significant releases to the environment of these materials.

(iv) The director may make a site-specific determination, after public review and comment, that only solid mineral processing spent material may be placed on pads rather than tanks containers, or buildings. Solid mineral processing spent materials do not contain any free liquid. The director shall affirm that pads are designed, constructed, and operated to prevent significant releases of the secondary material into the environment. Pads shall provide the degree of containment given by the non-RCRA tanks, containers, and buildings eligible for exclusion.

(A) The director shall also consider if storage on pads poses the potential for significant releases via groundwater, surface water, and air exposure pathways. Factors to be considered for assessing the groundwater, surface water, air exposure pathways are:

(I) the volume and physical and chemical properties of the secondary material, including its potential for migration off the pad;

(II) the potential for human or environmental exposure to hazardous constituents migrating from the pad via each exposure pathway; and

(III) the possibility and extent of harm to human and environmental receptors via each exposure pathway.

(B) Pads shall meet the following minimum standards: Be designed of non-earthen material that is compatible with the chemical nature of the mineral processing spent material, capable of withstanding physical stresses associated with placement and removal, have run-on and runoff controls, or both, be operated in a manner that controls fugitive dust, and have integrity assurance through inspections and maintenance programs.

(C) Before making a determination under Subsection R315-261-4(a)(17)(iv), the director shall provide notice and the opportunity for comment to each person potentially interested in the determination. This can be accomplished by placing notice of this action in major local newspapers, or broadcasting notice over local radio stations.

(v) The owner or operator provides notice to the director providing the following information: the types of materials to be recycled; the type and location of the storage units and recycling processes; and the annual quantities expected to be placed in land-based units. This notification shall be updated if there is a change in the type of materials recycled or the location of the recycling process.

(vi) For purposes of Subsection R315-261-4(b)(7), mineral processing spent materials shall be the result of mineral processing and may not include any listed hazardous wastes. Listed hazardous wastes and characteristic hazardous wastes generated by non-mineral processing industries are not eligible for the conditional exclusion from the definition of solid waste.

(18) Petrochemical recovered oil from an associated organic chemical manufacturing facility, if the oil is to be inserted into the petroleum refining process, SIC code 2911, along with normal petroleum refinery process streams, provided:

(i) the oil is hazardous only because it exhibits the characteristic of ignitability, as defined in Section R315-261-21, or toxicity for benzene, or both, Section R315-261-24, waste code D018; and

(ii) the oil generated by the organic chemical manufacturing facility is not placed on the land, or speculatively accumulated before being recycled into the petroleum refining process. An "associated organic chemical manufacturing facility" is a facility where the primary SIC code is 2869, but where operations may also include SIC codes 2821, 2822, and 2865; and is physically co-located with a petroleum refinery; and where the petroleum refinery that the oil being recycled is returned to also provides hydrocarbon feedstocks to the organic chemical manufacturing facility. "Petrochemical recovered oil" is oil that has been reclaimed from secondary materials that is sludges, by-products, or spent materials, including wastewater, from normal organic chemical manufacturing operations, as well as oil recovered from organic chemical manufacturing processes.

(19) Spent caustic solutions from petroleum refining liquid treating processes used as a feedstock to produce cresylic or naphthenic acid unless the material is placed on the land, or accumulated speculatively as defined in Subsection R315-261-1(c).

(20) Hazardous secondary materials used to make zinc fertilizers, provided the conditions specified in Subsections R315-261-4(a)(20)(i) through R315-261-4(a)(20)(v) are satisfied:

(i) Hazardous secondary materials used to make zinc micronutrient fertilizers may not be accumulated speculatively, as defined in Subsection R315-261-1(c)(8).

(ii) Generators and intermediate handlers of zinc-bearing hazardous secondary materials that are to be incorporated into zinc fertilizers shall:

(A) Submit a one-time notice to the director, which contains the name, address and EPA ID number of the generator or intermediate handler facility, provides a brief description of the secondary material that will be subject to the exclusion, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in Subsection R315-261-4(a)(20).

(B) Store the excluded secondary material in tanks, containers, or buildings that are constructed and maintained in a way that prevents releases of the secondary materials into the environment. At a minimum, any building used for this purpose shall be an engineered structure made of non-earthen materials that provide structural support, and shall have a floor, walls, and a roof that prevent wind dispersal and contact with rainwater. Tanks used for this purpose shall be structurally sound and, if outdoors, shall have roofs or covers that prevent contact with wind and rain. Containers used for this purpose shall be kept closed except if it is necessary to add or remove material, and shall be in sound condition. Containers that are stored outdoors shall be managed within storage areas that:

(I) have containment structures or systems sufficiently impervious to contain leaks, spills and accumulated precipitation; and

(II) provide for effective drainage and removal of leaks, spills and accumulated precipitation; and

(III) prevent run-on into the containment system.

(C) With each off-site shipment of excluded hazardous secondary materials, provide written notice to the receiving facility that the material is subject to the conditions of Subsection R315-261-4(a)(20).

(D) Maintain at the generator's or intermediate handlers's facility for no less than three years records of each shipment of excluded hazardous secondary materials. For each shipment these records shall at a minimum contain the information required by Subsections R315-261-4(a)(20)(ii)(D)(I) through R315-261-4(a)(20)(ii)(D)(III):

(I) name of the transporter and date of the shipment;

(II) name and address of the facility that received the excluded material, and documentation confirming receipt of the shipment; and

(III) type and quantity of excluded secondary material in each shipment.

(iii) Manufacturers of zinc fertilizers or zinc fertilizer ingredients made from excluded hazardous secondary materials shall:

(A) store excluded hazardous secondary materials in accordance with the storage requirements for generators and intermediate handlers, as specified in Subsection R315-261-4(a)(20)(ii)(B);

(B) submit a one-time notification to the director that, at a minimum, specifies the name, address and EPA ID number of the manufacturing facility, and identifies when the manufacturer intends to begin managing excluded, zinc-bearing hazardous secondary materials under the conditions specified in Subsection R315-261-4(a)(20);

(C) maintain for a minimum of three years records of each shipment of excluded hazardous secondary materials received by the manufacturer, which shall at a minimum identify for each shipment the name and address of the generating facility, name of transporter and date the materials were received, the quantity received, and a brief description of the industrial process that generated the material; and

(D) submit to the director an annual report that identifies the total quantities of any excluded hazardous secondary materials that were used to manufacture zinc fertilizers or zinc fertilizer ingredients in the previous year, the name and address of each generating facility, and the industrial processes that they were generated from.

(iv) Nothing in Section R315-261-4 preempts, overrides, or otherwise negates the provision in Section R315-262-11, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.

(v) Interim status and permitted storage units that have been used to store only zinc-bearing hazardous wastes before the submission of the one-time notice described in Subsection R315-261-4(a)(20)(ii)(A), and that afterward will be used only to store hazardous secondary materials excluded under Subsection R315-261-4(a)(20), are not subject to the closure requirements of Rules R315-264 and R315-265.

(21) Zinc fertilizers made from hazardous wastes, or hazardous secondary materials that are excluded under Subsection R315-261-4(a)(20), provided:

(i) The fertilizers meet the contaminant limits specified in the Table:

(A) For metal contaminants:

Table	
Constituent	Maximum Allowable Total Concentration in Fertilizer, per Unit (1%) of Zinc (ppm)
Arsenic	0.3
Cadmium	1.4
Chromium	0.6
Lead	2.8
Mercury	0.3

(B) For dioxin contaminants the fertilizer shall contain no more than eight parts per trillion of dioxin, measured as toxic equivalent (TEQ).

(ii) The manufacturer performs sampling and analysis of the fertilizer product to determine compliance with the contaminant limits for metals no less than each six month period, and for dioxins no less than each 12 month period. Testing shall also be performed if changes occur to manufacturing processes or ingredients that could significantly affect the amounts of contaminants in the fertilizer product. The manufacturer may use any reliable analytical method to demonstrate that no constituent of concern is present in the product at concentrations above the applicable limits. It is the responsibility of the manufacturer to ensure that the sampling and analysis are unbiased, precise, and representative of the products introduced into commerce.

(iii) The manufacturer maintains for no less than three years records of each sampling and analyses performed for purposes of determining compliance with the requirements of Subsection R315-261-4(a)(21)(ii). These records shall at a minimum include:

(A) the dates and times product samples were taken, and the dates the samples were analyzed;

(B) the names and qualifications of the person taking the samples;

(C) a description of the methods and equipment used to take the samples;

(D) the name and address of the laboratory facility where analyses of the samples were performed;

(E) a description of the analytical methods used, including any cleanup and sample preparation methods; and

(F) any laboratory analytical results used to determine compliance with the contaminant limits specified in this Subsection R315-261-4(a)(21).

(22) Used cathode ray tubes (CRTs).

(i) Used, intact CRTs as defined in Section R315-260-10 are not solid wastes within the United States unless they are disposed, or unless they are speculatively accumulated as defined in Subsection R315-261-1(c)(8) by CRT collectors or glass processors.

(ii) Used, intact CRTs as defined in Section R315-260-10 are not solid wastes if exported for recycling provided they meet the requirements of Section R315-261-40.

(iii) Used, broken CRTs as defined in Section R315-260-10 are not solid wastes provided they meet the requirements of Section R315-261-39.

(iv) Glass removed from CRTs is not a solid waste provided it meets the requirements of Subsection R315-261-39(c).

(23) Hazardous secondary material generated and legitimately reclaimed within the United States or its territories and under the control of the generator, provided the material complies with Subsections R315-261-4(a)(23)(i) and R315-261-4(a)(23)(ii):

(i)(A) the hazardous secondary material is generated and reclaimed at the generating facility, for purposes of this definition, generating facility means any contiguous property owned, leased, or otherwise controlled by the hazardous secondary material generator; or

(B) the hazardous secondary material is generated and reclaimed at different facilities, if the reclaiming facility is controlled by the generator or if both the generating facility and the reclaiming facility are controlled by a person as defined in Section R315-260-10, and if the generator provides one of the following certifications: "On behalf of (insert generator facility name), I certify that this facility will send the indicated hazardous secondary material to (insert reclaimer facility name), which is controlled by (insert generator facility name) and that (insert name of either facility) has acknowledged full responsibility for the safe management of the hazardous secondary material," or "On behalf of (insert generator facility name), I certify that this facility will send the indicated hazardous secondary material to (insert reclaimer facility name), that both facilities are under common control, and that (insert name of either facility) has acknowledged full responsibility for the safe management of the hazardous secondary material." For purposes of [~~this paragraph~~]Subsection R315-261-4(a)(23)(i)(B), "control" means the power to direct the policies of the facility, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate facilities on behalf of a different person as defined in Section R315-260-10 may not be considered to "control" these facilities. The generating and receiving facilities shall both maintain at their facilities for no less than three years records of hazardous secondary materials sent or received under this exclusion. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received under the exclusion. These requirements may be satisfied by routine business records such as financial records, bills of lading, copies of [~~U.S.~~]US Department of Transportation (DOT) shipping papers, or electronic confirmations; or

(C) the hazardous secondary material is generated pursuant to a written contract between a tolling contractor and a toll manufacturer and is reclaimed by the tolling contractor, if the tolling contractor certifies the following: "On behalf of (insert tolling contractor name), I certify that (insert tolling contractor name) has a written contract with (insert toll manufacturer name) to manufacture (insert name of product or intermediate) which is made from specified unused materials, and that (insert tolling contractor name) will reclaim the hazardous secondary

materials generated during this manufacture. On behalf of (insert tolling contractor name), I also certify that (insert tolling contractor name) keeps ownership of, and responsibility for, the hazardous secondary materials that are generated during the manufacture, including any releases of hazardous secondary materials that occur during the manufacturing process". The tolling contractor shall maintain at its facility for no less than three years records of hazardous secondary materials received pursuant to its written contract with the tolling manufacturer, and the tolling manufacturer shall maintain at its facility for no less than three years records of hazardous secondary materials shipped pursuant to its written contract with the tolling contractor. In both cases, the records shall contain the name of the transporter, the date of the shipment, and the type and quantity of the hazardous secondary material shipped or received pursuant to the written contract. These requirements may be satisfied by routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations. For purposes of Subsection R315-261-4(a)(23)(i)(C), tolling contractor means a person who arranges for the production of a product or intermediate made from specified unused materials through a written contract with a toll manufacturer. Toll manufacturer means a person who produces a product or intermediate made from specified unused materials pursuant to a written contract with a tolling contractor.

(ii)(A) The hazardous secondary material is contained as defined in Section R315-260-10. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for reclamation. Hazardous secondary material managed in a unit with leaks or other continuing or intermittent unpermitted releases is discarded and a solid waste.

(B) The hazardous secondary material is not speculatively accumulated, as defined in Subsection R315-261-1(c)(8).

(C) Notice is provided as required by Section R315-260-42.

(D) The material is not otherwise subject to material-specific management conditions under Subsection R315-261-4(a) if reclaimed, and it is not a spent lead-acid battery, see Sections R315-266-80 and R315-273-2.

(E) Persons performing the recycling of hazardous secondary materials under this exclusion shall maintain documentation of their legitimacy determination on-site. Documentation shall be a written description of how the recycling meets the three factors in Subsection R315-260-43(a) and how the factor in Subsection R315-260-43(b) was considered. Documentation shall be maintained for three years after the recycling operation has stopped.

(F) The emergency preparedness and response requirements found in Sections R315-261-400, R315-261-410, R315-261-411, and R315-261-420 are met.

(24) Hazardous secondary material that is generated and then transferred to another person for reclamation is not a solid waste, provided:

(i) the material is not speculatively accumulated, as defined in Subsection R315-261-1(c)(8);

(ii) the material is not handled by any person or facility other than the hazardous secondary material generator, the transporter, an intermediate facility or a reclaimer, and, while in transport, is not stored for more than 10 days at a transfer facility, as defined in Section R315-260-10, and is packaged according to applicable [~~Department of Transportation~~]US DOT regulations at 49 CFR parts 173, 178, and 179 while in transport;

(iii) the material is not otherwise subject to material-specific management conditions under Subsection R315-261-4(a) if reclaimed, and it is not a spent lead-acid battery, see Sections R315-266-80 and R315-273-2;

(iv) the reclamation of the material is legitimate, as specified under Section R315-260-43; and

(v) the hazardous secondary material generator satisfies the conditions in Subsections R315-261-4(a)(24)(v)(A) through R315-261-4(a)(24)(v)(F):

(A) The material shall be contained as defined in Section R315-260-10. A hazardous secondary material released to the environment is discarded and a solid waste unless it is immediately recovered for recycling. Hazardous secondary material managed in a unit with leaks or other continuing releases is discarded and a solid waste.

(B) Before arranging for transport of hazardous secondary materials to a reclamation facility, or facilities, where the management of the hazardous secondary materials is not addressed under a hazardous waste part B permit or interim status standards, the hazardous secondary material generator shall make reasonable efforts to ensure that each reclaimer intends to properly and legitimately reclaim the hazardous secondary material and not discard it, and that each reclaimer will manage the hazardous secondary material in a manner that is protective of human health and the environment. If the hazardous secondary material will be passing through an intermediate facility where the management of the hazardous secondary materials is not addressed under a hazardous waste part B permit or interim status standards, the hazardous secondary material generator shall make contractual arrangements with the intermediate facility to ensure that the hazardous secondary material is sent to the reclamation facility identified by the hazardous secondary material generator, and the hazardous secondary material generator shall perform reasonable efforts to ensure that the intermediate facility will manage the hazardous secondary material in a manner that is protective of human health and the environment. Reasonable efforts shall be repeated at a minimum of each three year period for the hazardous secondary material generator to claim the exclusion and to send the hazardous secondary materials to each reclaimer and any intermediate facility. In making these reasonable efforts, the generator may use any credible evidence available, including information gathered by the hazardous secondary material generator, provided by the reclaimer or either the intermediate facility, a third party, or both. The hazardous secondary material generator shall affirmatively answer the questions in Subsections R315-261-4(a)(24)(v)(B)(I) through R315-261-4(a)(24)(v)(B)(V) for each reclamation facility and any intermediate facility:

(I) Does the available information show that the reclamation process is legitimate pursuant to Section R315-260-43? In answering this question, the hazardous secondary material generator can rely on their existing knowledge of the physical and chemical properties of the hazardous secondary material, as well as information from other sources including the reclamation facility and audit reports about the reclamation process.

(II) Does the publicly available information show that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator notified the appropriate authorities of hazardous secondary materials reclamation activities pursuant to Section R315-260-42 and have they notified the appropriate authorities that the financial assurance condition is satisfied per Subsection R315-261-4(a)(24)(vi)(F)? In answering these questions, the hazardous secondary material generator can rely on the available information

documenting the reclamation facility's and any intermediate facility's compliance with the notification requirements per Section R315-260-42, including the requirement in Subsection R315-260-42(a)(5) to notify the director whether the reclaimer or intermediate facility has financial assurance.

(III) Does publicly available information show that the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has not had any formal enforcement actions taken against the facility in the previous three years for violations of Rules R315-260 through R315-268, R315-270, and R315-273 and has not been classified as a significant non-complier with Rules R315-260 through R315-268, R315-270, and R315-273? In answering this question, the hazardous secondary material generator can rely on the publicly available information from EPA or the state. If the reclamation facility or any intermediate facility that is used by the hazardous secondary material generator has had a formal enforcement action taken against the facility in the previous three years for violations of Rules R315-260 through R315-268, R315-270, and R315-273 and has been classified as a significant non-complier with Rules R315-260 through R315-268, R315-270, and R315-273, does the hazardous secondary material generator have credible evidence that the facilities will manage the hazardous secondary materials properly? In answering this question, the hazardous secondary material generator can get additional information from EPA, the state, or the facility itself that the facility has addressed the violations, taken remedial steps to address the violations and prevent future violations, or that the violations are not relevant to the proper management of the hazardous secondary materials.

(IV) Does the available information show that the reclamation facility and any intermediate facility that is used by the hazardous secondary material generator have the equipment and trained personnel to safely recycle the hazardous secondary material? In answering this question, the generator may rely on a description by the reclamation facility or by an independent third person of the equipment and trained personnel to be used to recycle the generator's hazardous secondary material.

(V) If residuals are generated from the reclamation of the excluded hazardous secondary materials, does the reclamation facility have the permits required, if any, to manage the residuals? If not, does the reclamation facility have a contract with an appropriately permitted facility to dispose of the residuals? If not, does the hazardous secondary material generator have credible evidence that the residuals will be managed in a manner that is protective of human health and the environment? In answering these questions, the hazardous secondary material generator can rely on publicly available information from EPA or the state, or information provided by the facility itself.

(C) The hazardous secondary material generator shall maintain for a minimum of three years documentation and certification that reasonable efforts were made for each reclamation facility and, if applicable, intermediate facility where the management of the hazardous secondary materials is not addressed under a hazardous waste part B permit or interim status standards before transferring hazardous secondary material. Documentation and certification shall be made available upon request by the director within 72 hours, or within a longer period as specified by the director. The certification statement shall:

(I) include the printed name and official title of an authorized representative of the hazardous secondary material generator company, the authorized representative's signature, and the date signed; and

(II) incorporate the following language: "I hereby certify in good faith and to the best of my knowledge that, before arranging for transport of excluded hazardous secondary materials to (insert name(s) of reclamation facility and any intermediate facility), reasonable efforts were made in accordance with Subsection R315-261-4(a)(24)(v)(B) to ensure that the hazardous secondary materials would be recycled legitimately, and otherwise managed in a manner that is protective of human health and the environment, and that such efforts were based on current and accurate information."

(D) The hazardous secondary material generator shall maintain at the generating facility for no less than three years records of each off-site shipment of hazardous secondary materials. For each shipment, these records shall, at a minimum, contain the information listed in Subsections R315-261-4(a)(24)(v)(D)(I) through R315-261-4(a)(24)(v)(D)(III):

(I) name of the transporter and date of the shipment;

(II) name and address of each reclaimer and, if applicable, the name and address of each intermediate facility that the hazardous secondary material was sent to; and

(III) the type and quantity of hazardous secondary material in the shipment.

(E) The hazardous secondary material generator shall maintain at the generating facility for no less than three years confirmations of receipt from each reclaimer and, if applicable, each intermediate facility for each off-site shipment of hazardous secondary materials. Confirmations of receipt shall include the name and address of the reclaimer, or intermediate facility, the type and quantity of the hazardous secondary materials received and the date that the hazardous secondary materials were received. This requirement may be satisfied by routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(F) The hazardous secondary material generator shall comply with the emergency preparedness and response conditions in Sections R315-261-400, R315-261-410, R315-261-411, and R315-261-420.

(vi) Reclaimers of hazardous secondary material excluded from regulation under this exclusion and intermediate facilities as defined in Section R315-260-10 satisfy the conditions in Subsections R315-261-4(a)(24)(vi)(A) through R315-261-4(a)(24)(vi)(F):

(A) The reclaimer and intermediate facility shall maintain at its facility for no less than three years records of each shipment of hazardous secondary materials that were received at the facility and, if applicable, for each shipment of hazardous secondary materials that were received and subsequently sent off-site from the facility for further reclamation. For each shipment, these records shall at a minimum contain the information required by Subsections R315-261-4(a)(24)(vi)(A)(I) through R315-261-4(a)(24)(vi)(A)(IV):

(I) name of the transporter and date of the shipment;

(II) name and address of the hazardous secondary material generator and, if applicable, the name and address of the reclaimer or intermediate facility that the hazardous secondary materials were received from;

(III) the type and quantity of hazardous secondary material in the shipment; and

(IV) for hazardous secondary materials that, after being received by the reclaimer or intermediate facility, were subsequently transferred off-site for further reclamation, the name and address of the, subsequent, reclaimer and, if applicable, the name and address of each intermediate facility that the hazardous secondary material was sent to.

(B) The intermediate facility shall send the hazardous secondary material to the reclaimer, or reclaimers designated by the hazardous secondary materials generator.

(C) The reclaimer and intermediate facility shall send to the hazardous secondary material generator confirmations of receipt for each off-site shipment of hazardous secondary materials. Confirmations of receipt shall include the name and address of the reclaimer, or intermediate facility, the type and quantity of the hazardous secondary materials received and the date that the hazardous secondary materials were received. This requirement may be satisfied by routine business records such as financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(D) The reclaimer and intermediate facility shall manage the hazardous secondary material in a manner that is at least as protective as that used for analogous raw material and shall be contained. An "analogous raw material" is a raw material that a hazardous secondary material is a substitute for and serves the function and has similar physical and chemical properties as the hazardous secondary material.

(E) Any residuals that are generated from reclamation processes shall be managed in a manner that is protective of human health and the environment. If any residuals exhibit a hazardous characteristic according to Sections R315-261-20 through R315-261-24, or if they themselves are specifically listed in Sections R315-261-30 through R315-261-35, these residuals are hazardous wastes and shall be managed in accordance with the applicable requirements of Rules R315-260 through R315-266, R315-268, and R315-270.

(F) The reclaimer and intermediate facility have financial assurance as required under Sections R315-261-140 through R315-261-151.

(vii) In addition, each person claiming the exclusion under Subsection R315-261-4(a)(24) provide notification as required under Section R315-260-42.

(25) Hazardous secondary material that is exported from the United States and reclaimed at a reclamation facility located in a foreign country is not a solid waste, provided the hazardous secondary material generator complies with the applicable requirements of Subsections R315-261-4(a)(24)(i) through R315-261-4(a)(24)(v), excepting Subsection R315-261-4(a)(24)(v)(B)(2) for foreign reclaimers and foreign intermediate facilities, and that the hazardous secondary material generator also complies with the requirements in Subsections R315-261-4(a)(25)(i) through R315-261-4(a)(25)(xii):

(i) Notify EPA of an intended export before the hazardous secondary material is scheduled to leave the United States. A complete notification shall be submitted at least 60 days before the initial shipment is intended to be shipped off-site. This notification may cover export activities extending over a 12 month or lesser period. The notification shall be in writing, signed by the hazardous secondary material generator, and include the information required by Subsections R315-261-4(a)(25)(i)(A) through R315-261-4(a)(25)(i)(I):

(A) name, [~~mailing~~]site address, telephone number, and EPA ID number, if applicable, of the hazardous secondary material generator;

(B) a description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste and the [~~U.S.~~]US DOT proper shipping name, hazard class and ID number, UN/NA, for each hazardous secondary material as identified in 49 CFR parts 171 through 177;

(C) the estimated frequency or rate that the hazardous secondary material is to be exported and the period that the hazardous secondary material is to be exported;

(D) the estimated total quantity of hazardous secondary material;

(E) each point of entry to and departure from each foreign country that the hazardous secondary material will pass through;

(F) a description of the means that will be used to transport each shipment of the hazardous secondary material, for example mode of transportation vehicle including air, highway, rail and water, and types of containers including drums, boxes and tanks;

(G) a description of the manner that will be used to reclaim the hazardous secondary material in the country of import;

(H) the name and site address of the reclaimer, any intermediate facility and any alternate reclaimer and intermediate facilities; and

(I) the name of any countries of transit that the hazardous secondary material will be sent through and a description of the approximate length of time it will remain in these countries and the nature of its handling while there, for purposes of [~~this section~~]Section R315-261-4, the terms "EPA Acknowledgement of Consent", "country of import" and "country of transit" are used as defined in Section R315-262-81 with the exception that the terms in Section R315-261-4 refer to hazardous secondary materials, rather than hazardous waste.

(ii) Notifications shall be submitted electronically using [~~EPA's Waste Import Export Tracking System, ~~]WIETS[~~,~~] or its successor system.

(iii) Except for changes to the telephone number in Subsection R315-261-4(a)(25)(i)(A) and decreases in the quantity of hazardous secondary material indicated pursuant to Subsection R315-261-4(a)(25)(i)(D), if the conditions specified on the original notification change, including any exceedance of the estimate of the quantity of hazardous secondary material specified in the original notification, the hazardous secondary material generator shall provide EPA with a written renotification of the change. The shipment cannot take place until consent of the country of import to the changes, except for changes to Subsection R315-261-4(a)(25)(i)(I) and in the ports of entry to and departure from countries of transit pursuant to Subsection R315-261-4(a)(25)(i)(E), has been received and the hazardous secondary material generator receives from EPA an EPA Acknowledgment of Consent reflecting the country of import's consent to the changes.

(iv) Upon request by EPA, the hazardous secondary material generator shall furnish to EPA any additional information that a country of import requests to respond to a notification.

(v) EPA will provide a complete notification to the country of import and any countries of transit. A notification is complete [~~if~~]when EPA receives a notification that EPA determines satisfies the requirements of Subsection R315-261-4(a)(25)(i).[~~ If a claim of confidentiality is asserted with respect to any notification information required by Subsection R315-261-4(a)(25)(i), EPA may find the notification not complete until the claim is resolved in accordance with 40 CFR 260.2.~~]

(vi) The export of hazardous secondary material under Subsection R315-261-4(a)(25) is prohibited unless the hazardous secondary material generator receives from EPA an EPA Acknowledgment of Consent documenting the consent of the country of import to the receipt of the hazardous secondary material. If the country of import objects to receipt of the hazardous secondary material or withdraws an earlier

consent, EPA will notify the hazardous secondary material generator in writing. EPA will also notify the hazardous secondary material generator of any responses from countries of transit.

(vii) Before each shipment, the hazardous secondary material generator or a [~~U.S.~~]US authorized agent shall:

(A) submit Electronic Export Information (EEI) for each shipment to the Automated Export System (AES) or its successor systems, under the International Trade Data System (ITDS) platform, in accordance with 15 CFR 30.4(b); and

(B) include the items in Subsections R315-261-4(a)(25)(vii)(B)(1) through R315-261-4(a)(25)(vii)(B)(7) in the EEI, along with the other information required under 15 CFR 30.6:

(1) EPA license code;

(2) commodity classification code per 15 CFR 30.6(a)(12);

(3) EPA consent number;

(4) country of ultimate destination per 15 CFR 30.6(a)(5);

(5) date of export per 15 CFR 30.6(a)(2); and

(6) quantity of waste in shipment and units for reported quantity, if required reporting units established by values for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6(a)(15); or

(7) EPA net quantity reported in units of kilograms, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(viii) A copy of the EPA Acknowledgment of Consent shall accompany the shipment. The shipment shall conform to the terms of the EPA Acknowledgment of Consent.

(ix) If a shipment cannot be delivered for any reason to the reclaimer, intermediate facility, or the alternate reclaimer or alternate intermediate facility, the hazardous secondary material generator shall re[~~-~~]notify EPA of a change in the conditions of the original notification to allow shipment to a new reclaimer in accordance with Subsection R315-261-4(a)(25)(iii) and get another EPA Acknowledgment of Consent.

(x) Hazardous secondary material generators shall keep a copy of each notification of intent to export and each EPA Acknowledgment of Consent for a period of three years following receipt of the EPA Acknowledgment of Consent. They may satisfy this recordkeeping requirement by keeping electronically submitted notifications or electronically generated Acknowledgements in their account on [~~EPA's Waste Import Export Tracking System, ~~]WIETS, or its successor system, provided copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No hazardous secondary material generator may be held liable for the inability to produce a notification or Acknowledgement for inspection under Subsection R315-261-4(a)(25) if they can demonstrate that the inability to produce copies is due exclusively to technical difficulty with [~~EPA's Waste Import Export Tracking System, ~~]WIETS, or its successor system, for which[~~that~~] the hazardous secondary material generator bears no responsibility.

(xi) Hazardous secondary material generators shall file with the Administrator no later than March 1 of each year, a report summarizing the types, quantities, frequency, and ultimate destination of each hazardous secondary material exported during the previous calendar year. Annual reports shall be submitted electronically using [~~EPA's Waste Import Export Tracking System, ~~]WIETS[~~,~~] or its successor system. These reports shall include the information listed in Subsections R315-261-4(a)(25)(xi)(A) through R315-261-4(a)(25)(xi)(E):

(A) name, mailing and site address, and EPA ID number, if applicable, of the hazardous secondary material generator;

(B) the calendar year covered by the report;

(C) the name and site address of each reclaimer and intermediate facility;

(D) by reclaimer and intermediate facility, for each hazardous secondary material exported, a description of the hazardous secondary material and the EPA hazardous waste number that would apply if the hazardous secondary material was managed as hazardous waste, the DOT hazard class, the name and [~~U.S.~~]US EPA ID number, if applicable, for each transporter used, the consent numbers that the hazardous secondary material was shipped under and for each consent number, the total amount of hazardous secondary material shipped and the number of shipments exported during the calendar year covered by the report; and

(E) a certification signed by the hazardous secondary material generator that states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and each attached document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

(xii) Each person claiming an exclusion under Subsection R315-261-4(a)(25) shall provide notification as required by Section R315-260-42.

(26) Solvent-contaminated wipes that are sent for cleaning and reuse are not solid wastes from the point of generation, provided:

(i) the solvent-contaminated wipes, if accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed if there is complete contact between the fitted lid and the rim, except [~~when~~]if it is necessary to add or remove solvent-contaminated wipes. If the container is full, or if the solvent-contaminated wipes are no longer being accumulated, or if the container is being transported, the container shall be sealed with the lids properly and securely affixed to the container and any openings tightly bound or closed sufficiently to prevent leaks and emissions;

(ii) the solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container before being sent for cleaning;

(iii) at the point of being sent for cleaning on-site or at the point of being transported off-site for cleaning, the solvent-contaminated wipes shall contain no free liquids as defined in Section R315-260-10;

(iv) free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable rules found in Rules R315-260 through R315-266, R315-268, R315-270, and R315-273;

(v) generators shall maintain at their site the documentation listed in Subsections R315-261-4(a)(26)(iv)(A) through R315-261-4(a)(26)(iv)(C):

(A) name and address of the laundry or dry cleaner that is receiving the solvent-contaminated wipes;

(B) documentation that the 180-day accumulation time limit in Subsection R315-261-4(a)(26)(ii) is being met; and

(C) description of the process the generator is using to ensure the solvent-contaminated wipes contain no free liquids at the point of being laundered or dry cleaned on-site or at the point of being transported off-site for laundering or dry cleaning; and

(vi) the solvent-contaminated wipes are sent to a laundry or dry cleaner whose discharge, if any, is regulated under [~~s~~]Sections 301 and 402 or [~~s~~]Section 307 of the Clean Water Act.

(27) Hazardous secondary material that is generated and then transferred to another person for remanufacturing is not a solid waste, provided:

(i) The hazardous secondary material consists of one or more of the following spent solvents: Toluene, xylenes, ethylbenzene, 1,2,4-trimethylbenzene, chlorobenzene, n-hexane, cyclohexane, methyl tert-butyl ether, acetonitrile, chloroform, chloromethane, dichloromethane, methyl isobutyl ketone, N,N-dimethylformamide, tetrahydrofuran, n-butyl alcohol, ethanol, or methanol.

(ii) The hazardous secondary material originated from using one or more of the solvents listed in Subsection R315-261-4(a)(27)(i) in a commercial grade for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions; in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and the paints and coatings manufacturing sectors, NAICS 325510.

(iii) The hazardous secondary material generator sends the hazardous secondary material spent solvents listed in Subsection R315-261-4(a)(27)(i) to a remanufacturer in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; or the paints and coatings manufacturing sectors, NAICS 325510.

(iv) After remanufacturing one or more of the solvents listed in Subsection R315-261-4(a)(27)(i), the use of the remanufactured solvent shall be limited to reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, in the pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and the paints and coatings manufacturing sectors, NAICS 325510; or to using them as ingredients in a product. These allowed uses correspond to chemical functional uses enumerated under the Chemical Data Reporting Rule of the Toxic Substances Control Act, 40 CFR parts 704, 710-711, including Industrial Function Codes U015, solvents consumed in a reaction to produce other chemicals, and U030, solvents become part of the mixture.

(v) After remanufacturing one or more of the solvents listed in Subsection R315-261-4(a)(27)(i), the use of the remanufactured solvent does not involve cleaning or degreasing oil, grease, or similar material from textiles, glassware, metal surfaces, or other articles. These disallowed continuing uses correspond to chemical functional uses in Industrial Function Code U029 under the Chemical Data Reporting Rule of the Toxics Substances Control Act.

(vi) Both the hazardous secondary material generator and the remanufacturer shall:

(A) notify the director and update the notification each two year period per Section R315-260-42;

(B) develop and maintain an up-to-date remanufacturing plan that identifies:

(I) the name, address and EPA ID number of the generators and the remanufacturers;

(II) the types and estimated annual volumes of spent solvents to be remanufactured;

(III) the processes and industry sectors that generate the spent solvents;

(IV) the specific uses and industry sectors for the remanufactured solvents; and

(V) a certification from the remanufacturer stating, "On behalf of (insert remanufacturer facility name), I certify that this facility is a remanufacturer under pharmaceutical manufacturing, NAICS 325412; basic organic chemical manufacturing, NAICS 325199; plastics and resins manufacturing, NAICS 325211; and/or the paints and coatings manufacturing sectors, NAICS 325510; and will accept the spent solvent(s) for the sole purpose of remanufacturing into commercial[~~-~~] grade solvent(s) that will be used for reacting, extracting, purifying, or blending chemicals, or for rinsing out the process lines associated with these functions, or for use as product ingredient(s). I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63, or, absent [~~such~~]the Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in Sections R315-261-1030 through R315-261-1035, R315-261-1050 through R315-261-1064 and R315-261-1080 through R315-261-1089";

(C) maintain records of shipments and confirmations of receipts for a period of three years from the dates of the shipments;

(D) before remanufacturing, store the hazardous spent solvents in tanks or containers that meet technical standards found in Sections R315-261-17 through R315-261-179 and R315-261-190 through R315-261-200, with the tanks and containers being labeled or otherwise having an immediately available record of the material being stored;

(E) during remanufacturing, and during storage of the hazardous secondary materials before remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 CFR part 60, part 61 or part 63; or, absent any Clean Air Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in Sections R315-261-1030 through R315-261-1035, R315-261-1050 through R315-261-1064 and R315-261-1080 through R315-261-1089; and

(F) meet the requirements prohibiting speculative accumulation per Subsection R315-261-1(c)(8).

(b) Solid wastes that are not hazardous wastes. The solid wastes listed in Subsections R315-261-4(b)(1) through R315-261-4(b)(18) are not hazardous wastes:

(1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered such as refuse-derived fuel, or reused. "Household waste" means any material, including garbage, trash, and sanitary wastes in septic tanks, derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas. A resource recovery facility managing municipal solid waste may not be considered to be treating, storing, disposing of, or otherwise managing hazardous wastes for the purposes of regulation under this subtitle, if the facility:

(i) receives and burns only:

(A) household waste, from single and multiple dwellings, hotels, motels, and other residential sources; and

(B) solid waste from commercial or industrial sources that does not contain hazardous waste.

(ii) The facility does not accept hazardous wastes and the owner or operator of the facility has established contractual requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in the facility.

(2) Solid wastes generated by any of the methods listed in Subsections R315-261-4(b)(2)(i) and R315-261-4(b)(2)(ii) and that are returned to the soils as fertilizers:

(i) The growing and harvesting of agricultural crops.

(ii) The raising of animals, including animal manures.

(3) Mining overburden returned to the mine site.

(4)(i) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.

(ii) The wastes listed in Subsections R315-261-4(b)(4)(ii)(A) through R315-261-4(b)(4)(ii)(H) and generated primarily from processes that support the combustion of coal or other fossil fuels that are co-disposed with the wastes in Subsection R315-261-4(b)(4)(i), except as provided by Section R315-266-112 for facilities that burn or process hazardous waste:

(A) Coal pile run[-]off. For purposes of Subsection R315-261-4(b)(4), coal pile run[-]off means any precipitation that drains off coal piles.

(B) Boiler cleaning solutions. For purposes of Subsection R315-261-4(b)(4), boiler cleaning solutions means water solutions and chemical solutions used to clean the fire-side and water-side of the boiler.

(C) Boiler blowdown. For purposes of Subsection R315-261-4(b)(4), boiler blowdown means water purged from boilers used to generate steam.

(D) Process water treatment and demineralizer regeneration wastes. For purposes of Subsection R315-261-4(b)(4), process water treatment and demineralizer regeneration wastes means sludges, rinses, and spent resins generated from processes to remove dissolved gases, suspended solids, and dissolved chemical salts from combustion system process water.

(E) Cooling tower blowdown. For purposes of Subsection R315-261-4(b)(4), cooling tower blowdown means water purged from a closed cycle cooling system. Closed cycle cooling systems include cooling towers, cooling ponds, or spray canals.

(F) Air heater and precipitator washes. For purposes of Subsection R315-261-4(b)(4), air heater and precipitator washes means wastes from cleaning air preheaters and electrostatic precipitators.

(G) Effluents from floor and yard drains and sumps. For purposes of Subsection R315-261-4(b)(4), effluents from floor and yard drains and sumps means wastewaters, such as wash water, collected by or from floor drains, equipment drains, and sumps located inside the power plant building; and wastewaters, such as rain runoff, collected by yard drains and sumps located outside the power plant building.

(H) Wastewater treatment sludges. For purposes of Subsection R315-261-4(b)(4), wastewater treatment sludges refers to sludges generated from the treatment of wastewaters specified in Subsections R315-261-4(b)(4)(ii)(A) through R315-251-4(b)(4)(ii)(F).

(5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy.

(6)(i) Wastes that fail the test for the Toxicity Characteristic because chromium is present or are listed in Sections R315-261-30 through R315-261-35 due to the presence of chromium, that do not fail the test for the Toxicity Characteristic for any other constituent or are not listed due to the presence of any other constituent, and that do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

(A) the chromium in the waste is exclusively, or nearly exclusively, trivalent chromium; and

(B) the waste is generated from an industrial process that uses trivalent chromium exclusively, or nearly exclusively, and the process does not generate hexavalent chromium; and

(C) the waste is typically and often managed in non-oxidizing environments.

(ii) Specific wastes that meet the standard in Subsections R315-261-4(b)(6)(i)(A), R315-261-4(b)(6)(i)(B), and R315-261-4(b)(6)(i)(C), so long as they do not fail the test for the Toxicity Characteristic for any other constituent, and do not exhibit any other characteristic, are:

(A) Chrome, blue, trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(B) Chrome, blue, shavings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(C) Buffing dust generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

(D) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(E) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

(F) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: Hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

(G) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

(H) Wastewater treatment sludges from the production of TiO2 pigment using chromium-bearing ores by the chloride process.

(7) Solid waste from the extraction, beneficiation, and processing of ores and minerals, including coal, phosphate rock, and overburden from the mining of uranium ore, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.

(i) For purposes of Subsection R315-261-4(b)(7) beneficiation of ores and minerals is restricted to the following activities: crushing; grinding; washing; dissolution; crystallization; filtration; sorting; sizing; drying; sintering; pelletizing; briquetting; calcining to remove water, carbon dioxide, or both; roasting, autoclaving, chlorination, or both in preparation for leaching, except if the roasting, or autoclaving, or chlorination or leaching, or any combination of these, sequence produces a final or intermediate product that does not undergo further beneficiation or processing; gravity concentration; magnetic separation; electrostatic separation; flotation; ion exchange; solvent extraction; electrowinning; precipitation; amalgamation; and heap, dump, vat, tank, and in situ leaching.

(ii) For the purposes of Subsection R315-261-4(b)(7), solid waste from the processing of ores and minerals includes only the wastes listed in Subsections R315-261-4(b)(7)(ii)(A) through R315-261-4(b)(7)(ii)(T) as generated:

(A) slag from primary copper processing;

(B) slag from primary lead processing;

(C) red and brown muds from bauxite refining;

(D) phosphogypsum from phosphoric acid production;

(E) slag from elemental phosphorus production;

(F) gasifier ash from coal gasification;

(G) process wastewater from coal gasification;

(H) calcium sulfate wastewater treatment plant sludge from primary copper processing;

(I) slag tailings from primary copper processing;

(J) fluorogypsum from hydrofluoric acid production;

(K) process wastewater from hydrofluoric acid production;

(L) air pollution control dust or sludge from iron blast furnaces;

(M) iron blast furnace slag;

(N) treated residue from roasting or leaching of chrome ore;

(O) process wastewater from primary magnesium processing by the anhydrous process;

(P) process wastewater from phosphoric acid production;

(Q) basic oxygen furnace and open hearth furnace air pollution control dust or sludge from carbon steel production;

(R) basic oxygen furnace and open hearth furnace slag from carbon steel production;

(S) chloride process waste solids from titanium tetrachloride production; and

(T) slag from primary zinc processing.

(iii) A residue derived from co-processing mineral processing secondary materials with normal beneficiation raw materials or with normal mineral processing raw materials remains excluded under Subsection R315-261-4(b) if the owner or operator:

(A) processes at least 50% by weight normal beneficiation raw materials or normal mineral processing raw materials; and

(B) legitimately reclaims the secondary mineral processing materials.

(8) Cement kiln dust waste, except as provided by Section R315-266-112 for facilities that burn or process hazardous waste.

(9) Solid waste that consists of discarded arsenical-treated wood or wood products that fails the test for the Toxicity Characteristic for Hazardous Waste Codes D004 through D017 and that is not a hazardous waste for any other reason if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

(10) Petroleum-contaminated media and debris that fail the test for the Toxicity Characteristic of Section R315-261-24, Hazardous Waste Codes D018 through D043 only, and are subject to the corrective action rules in 40 CFR 280 [~~which~~]that are contained in Section R311-202-1.

(11) Injected groundwater that is hazardous only because it exhibits the Toxicity Characteristic, Hazardous Waste Codes D018 through D043 only, in Section R315-261-24 that is reinjected through an underground injection well pursuant to free phase hydrocarbon recovery operations undertaken at petroleum refineries, petroleum marketing terminals, petroleum bulk plants, petroleum pipelines, and petroleum transportation spill sites until January 25, 1993. This extension applies to recovery operations in existence, or that contracts have been issued for, on or before March 25, 1991. For groundwater returned through infiltration galleries from these operations at petroleum refineries, marketing terminals, and bulk plants, until October 2, 1991. New operations involving injection wells, beginning after March 25, 1991, will qualify for this compliance date extension, until January 25, 1993, only if:

(i) operations are performed pursuant to a written state agreement that includes a provision to assess the groundwater and the need for further remediation once the free phase recovery is finished; and

(ii) a copy of the written agreement has been submitted to: Waste Identification Branch (5304), [~~U.S. ~~]US Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460 and the Division of Waste Management and Radiation Control, PO Box 144880, Salt Lake City, UT 84114-4880.

(12) Used chlorofluorocarbon refrigerants from totally enclosed heat transfer equipment, including mobile air conditioning systems, mobile refrigeration, and commercial and industrial air conditioning and refrigeration systems that use chlorofluorocarbons as the heat transfer fluid in a refrigeration cycle, provided the refrigerant is reclaimed for further use.

(13) Non-terne plated used oil filters that are not mixed with wastes listed in Sections R315-261-30 through R315-261-35 if these oil filters have been gravity hot-drained using one of the methods listed in Subsections R315-261-4(b)(13)(i) through R315-261-4(b)(13)(iv):

(i) puncturing the filter anti-drain back valve or the filter dome end and hot-draining;

(ii) hot-draining and crushing;

(iii) dismantling and hot-draining; or

(iv) any other equivalent hot-draining method that will remove used oil.

(14) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products.

(15) Leachate or gas condensate collected from landfills where certain solid wastes have been disposed, provided:

(i) the solid wastes disposed would meet one or more of the listing descriptions for Hazardous Waste Codes K169, K170, K171, K172, K174, K175, K176, K177, K178 and K181 if these wastes had been generated after the effective date of the listing;

(ii) the solid wastes described in Subsection R315-261-4(b)(15)(i) were disposed before the effective date of the listing;

(iii) the leachate or gas condensate do not exhibit any characteristic of hazardous waste nor are derived from any other listed hazardous waste;

(iv) discharge of the leachate or gas condensate, including leachate or gas condensate transferred from the landfill to a POTW by truck, rail, or dedicated pipe, is subject to regulation under [~~s~~]Sections 307(b) or 402 of the Clean Water Act; and

(v) as of February 13, 2001, leachate or gas condensate derived from K169-K172 is no longer exempt if it is stored or managed in a surface impoundment before discharge. As of November 21, 2003, leachate or gas condensate derived from K176, K177, and K178 is no longer exempt if it is stored or managed in a surface impoundment before discharge. After February 26, 2007, leachate or gas condensate derived from K181 will no longer be exempt if it is stored or managed in a surface impoundment before discharge. There is one exception: if the surface impoundment is used to temporarily store leachate or gas condensate in response to an emergency situation such as shutdown of wastewater treatment system, provided the impoundment has a double liner, and provided the leachate or gas condensate is removed from the impoundment and continues to be managed in compliance with the conditions of Subsection R315-261-4(b)(15)(v) after the emergency ends.

(16) Reserved

(17) Reserved

(18) Solvent-contaminated wipes, except for wipes that are hazardous waste due to the presence of trichloroethylene, that are sent for disposal are not hazardous wastes from the point of generation provided:

(i) the solvent-contaminated wipes, when accumulated, stored, and transported, are contained in non-leaking, closed containers that are labeled "Excluded Solvent-Contaminated Wipes." The containers shall be able to contain free liquids, should free liquids occur. During accumulation, a container is considered closed if there is complete contact between the fitted lid and the rim, except [~~when~~]if it is necessary to add or remove solvent-contaminated wipes. If the container is full, or if the solvent-contaminated wipes are no longer being accumulated, or if the container is being transported, the container shall be sealed with the lids properly and securely affixed to the container and any openings tightly bound or closed sufficiently to prevent leaks and emissions;

(ii) the solvent-contaminated wipes may be accumulated by the generator for up to 180 days from the start date of accumulation for each container before being sent for disposal;

(iii) at the point of being transported for disposal, the solvent-contaminated wipes shall contain no free liquids as defined in Section R315-260-10;

(iv) free liquids removed from the solvent-contaminated wipes or from the container holding the wipes shall be managed according to the applicable rules found in Rules R315-260 through R315-266, R315-268, R315-270, and R315-273;

(v) [~~G~~]generators shall maintain at their site the documentation listed in Subsections R315-261-4(b)(18)(v)(A) through R315-261-4(b)(18)(v)(C):

(A) name and address of the landfill or combustor that is receiving the solvent-contaminated wipes;

(B) documentation that the 180-day accumulation time limit in Subsection R315-261-4(b)(18)(ii) is being met; and

(C) description of the process the generator is using to ensure solvent-contaminated wipes contain no free liquids at the point of being transported for disposal; and

(vi) the solvent-contaminated wipes are sent for disposal:

(A) to a solid waste landfill that:

(I) is regulated under Rules R315-301 through R315-320;

(II) is a Class I or V Landfill; and

(III) has a composite liner; or

(B) to a hazardous waste landfill regulated under Rules R315-260 through R315-266, R315-268, and R315-270; or

(C) to a municipal waste combustor or other combustion facility regulated under [~~s~~]Section 129 of the Clean Air Act or to a hazardous waste combustor, boiler, or industrial furnace regulated under Rule R315-264, Rule R315-265, or Sections R315-266-100 through R315-266-112.

(c) Hazardous wastes that are exempted from certain rules. A hazardous waste that is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment-manufacturing unit, is not subject to regulation under Rules R315-262 through R315-265, R315-268, R315-270, and R315-124 or to the notification requirements of [~~s~~]Section 3010 of RCRA until it exits the unit that it was generated in, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit stops being operated for manufacturing, or for storage or transportation of product or raw materials.

(d)(1) Samples. Except as provided in Subsections R315-261-4(d)(2) and R315-261-4(d)(4), a sample of solid waste or a sample of water, soil, or air, [~~which~~]that is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of Rules R315-261 through R315-266, R315-268 or R315-270 or R315-124 or to the notification requirements of Section 3010 of RCRA, if:

(i) the sample is being transported to a laboratory for testing; or

(ii) the sample is being transported back to the sample collector after testing; or

(iii) the sample is being stored by the sample collector before transport to a laboratory for testing; or

(iv) the sample is being stored in a laboratory before testing; or

(v) the sample is being stored in a laboratory after testing but before it is returned to the sample collector; or

(vi) the sample is being stored temporarily in the laboratory after testing for a specific purpose, for example, until conclusion of a court case or enforcement action [~~when~~]if further testing of the sample may be necessary.

(2) To qualify for the exemption in Subsections R315-261-4(d)(1)(i) and R315-261-4(d)(1)(ii), a sample collector shipping samples to a laboratory and a laboratory returning samples to a sample collector shall:

(i) comply with DOT, [~~U.S.~~]US Postal Service (USPS), or any other applicable shipping requirements; or

(ii) comply with the requirements of Subsections R315-261-4(d)(2)(ii)(A) and R315-261-4(d)(2)(ii)(B) if the sample collector determines that DOT, USPS, or other shipping requirements do not apply to the shipment of the sample:

(A) Assure that the information listed in Subsections R315-261-4(d)(2)(ii)(A)(I) through R315-261-4(d)(2)(ii)(A)(V) accompanies the sample:

(I) the sample collector's name, mailing address, and telephone number;

(II) the laboratory's name, mailing address, and telephone number;

(III) the quantity of the sample;

(IV) the date of shipment; and

(V) a description of the sample.

(B) Package the sample so that it does not leak, spill, or vaporize from its packaging.

(3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in Subsection R315-261-4(d)(1).

(4) To qualify for the exemption in Subsections R315-261-4(d)(1)(i) and R315-261-4(d)(1)(ii), the mass of a sample that will be exported to a foreign laboratory or that will be imported to a [~~U.S.~~]US laboratory from a foreign source shall additionally not exceed 25 kg.

(e)(1) Treatability Study Samples. Except as provided in Subsections R315-261-4(e)(2) and R315-261-4(e)(4), persons who generate or collect samples for conducting treatability studies as defined in Section R315-260-10, are not subject to any requirement of Rules R315-261 through R315-263 or to the notification requirements of Section 3010 of RCRA, nor are the samples included in the quantity determinations of Section R315-262-13 and the accumulation limits in Subsections R315-262-14(a)(3), R315-262-14(a)(4), and R315-262-16(b)(1)[~~261-5 and Subsection R315-262-34(d)~~] if:

(i) the sample is being collected and prepared for transportation by the generator or sample collector; or

(ii) the sample is being accumulated or stored by the generator or sample collector before transportation to a laboratory or testing facility; or

(iii) the sample is being transported to the laboratory or testing facility for conducting a treatability study.

(2) The exemption in Subsection R315-261-4(e)(1) applies to samples of hazardous waste being collected and shipped for conducting treatability studies provided:

(i) the generator or sample collector uses, in treatability studies, no more than 10,000 kg of media contaminated with non-acute hazardous waste, 1,000 kg of non-acute hazardous waste other than contaminated media, 1 kg of acute hazardous waste, 2,500 kg of media contaminated with acute hazardous waste for each process being evaluated for each generated waste stream; and

(ii) the mass of each sample shipment does not exceed 10,000 kg; the 10,000 kg quantity may be media contaminated with non-acute hazardous waste, or may include 2,500 kg of media contaminated with acute hazardous waste, 1,000 kg of hazardous waste, and 1 kg of acute hazardous waste; and

(iii) the sample shall be packaged so that it will not leak, spill, or vaporize from its packaging during shipment and the requirements of Subsection R315-261-4(e)(2)(iii)(A) or R315-261-4(e)(2)(iii)(B) are met.

(A) The transportation of each sample shipment complies with DOT, USPS, or any other applicable shipping requirements; or

(B) If the DOT, USPS, or other shipping requirements do not apply to the shipment of the sample, the information listed in Subsections R315-261-4(e)(2)(iii)(B)(I) through R315-261-4(e)(2)(iii)(B)(V) shall accompany the sample:

(I) the name, mailing address, and telephone number of the originator of the sample;

(II) the name, address, and telephone number of the facility that will perform the treatability study;

(III) the quantity of the sample;

(IV) the date of shipment; and

(V) a description of the sample, including its EPA Hazardous Waste Number.

(iv) The sample is shipped to a laboratory or testing facility that is exempt under Subsection R315-261-4(f) or has an appropriate hazardous waste permit or interim status.

(v) The generator or sample collector maintains the records listed in Subsections R315-261-4(e)(2)(v)(A) through R315-261-4(e)(2)(v)(C) for a period ending three years after completion of the treatability study:

(A) copies of the shipping documents;

(B) a copy of the contract with the facility conducting the treatability study;

(C) documentation showing:

(I) the amount of waste shipped under this exemption;

(II) the name, address, and EPA identification number of the laboratory or testing facility that received the waste;

(III) the date the shipment was made; and

(IV) whether or not unused samples and residues were returned to the generator.

(vi) The generator reports the information required under Subsection R315-261-4(e)(2)(v)(C) in its biennial report.

(3) The director may grant requests on a case-by-case basis for up to an additional two years for treatability studies involving bioremediation. The director may grant requests on a case-by-case basis for quantity limits [~~in excess of~~]more than those specified in Subsections R315-261-4(e)(2)(i) and R315-261-4(e)(2)(ii) and Subsection R315-261-4(f)(4), for up to an additional 5,000 kg of media

contaminated with non-acute hazardous waste, 500 kg of non-acute hazardous waste, 2,500 kg of media contaminated with acute hazardous waste and 1 kg of acute hazardous waste.

(i) In response to requests for authorization to ship, store, and conduct treatability studies on additional quantities in advance of commencing treatability studies. Factors to be considered in reviewing these requests include the nature of the technology; the type of process, batch versus continuous; size of the unit undergoing testing, particularly in relation to scale-up considerations; the time or quantity of material required to reach steady state operating conditions; or test design considerations such as mass balance calculations.

(ii) In response to requests for authorization to ship, store, and conduct treatability studies on additional quantities after initiation or completion of initial treatability studies, if:

(A) there has been an equipment or mechanical failure during the conduct of a treatability study;

(B) there is a need to verify the results of a previously conducted treatability study;

(C) there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or

(D) there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment.

(iii) The additional quantities and timeframes allowed in Subsections R315-261-4(e)(3)(i) and R315-261-4(e)(3)(ii) are subject to Subsections R315-261-4(e)(1) and R315-261-4(e)(2)(iii) through R315-261-4(e)(2)(vi). The generator or sample collector shall apply to the director and provide in writing the information listed in Subsections R315-261-4(e)(3)(iii)(A) through R315-261-4(e)(3)(iii)(E):

(A) the reason why the generator or sample collector requires additional time or quantity of sample for treatability study evaluation and the additional time or quantity needed;

(B) documentation accounting for any samples of hazardous waste from the waste stream that have been sent for or undergone treatability studies including the date each previous sample from the waste stream was shipped, the quantity of each previous shipment, the laboratory or testing facility that it was shipped to, what treatability study processes were conducted on each sample shipped, and the available results on each treatability study;

(C) a description of the technical modifications or change in specifications that will be evaluated and the expected results;

(D) if further study is being required due to equipment or mechanical failure, the applicant shall include information regarding the reason for the failure or breakdown and also include what procedures or equipment improvements have been made to protect against further breakdowns; and

(E) other information that the director considers necessary.

(4) To qualify for the exemption in Subsection R315-261-4(e)(1)(i), the mass of a sample that will be exported to a foreign laboratory or testing facility or that will be imported to a [~~U.S.~~]US laboratory or testing facility from a foreign source shall additionally not exceed 25 kg.

(f) Samples Undergoing Treatability Studies at Laboratories and Testing Facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting the treatability studies, to the extent the facilities are not otherwise subject to RCRA requirements, are not subject to any requirement of Rules R315-261 through R315-266, R315-268, and R315-270, or to the notification requirements of Section 3010 of RCRA provided the conditions of Subsections R315-261-4(f)(1) through R315-261-4(f)(11) are met. A mobile treatment unit (MTU) may qualify as a testing facility subject to Subsections R315-261-4(f)(1) through R315-261-4(f)(11). If a group of MTUs are located at a site, the limitations specified in Subsections R315-261-4(f)(1) through R315-261-4(f)(11) apply to the entire group of MTUs collectively as if the group were one MTU.

(1) No less than 45 days before conducting treatability studies, the facility notifies the director, in writing that it intends to conduct treatability studies under Subsection R315-261-4(f).

(2) The laboratory or testing facility conducting the treatability study has an EPA identification number.

(3) No more than a total of 10,000 kg of "as received" media contaminated with non-acute hazardous waste, 2,500 kg of media contaminated with acute hazardous waste or 250 kg of other "as received" hazardous waste is subject to initiation of treatment in treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

(4) The quantity of "as received" hazardous waste stored at the facility for evaluation in treatability studies does not exceed 10,000 kg, the total can include 10,000 kg of media contaminated with non-acute hazardous waste, 2,500 kg of media contaminated with acute hazardous waste, 1,000 kg of non-acute hazardous wastes other than contaminated media, and 1 kg of acute hazardous waste. This quantity limitation does not include treatment materials, including [~~nonhazardous~~]solid waste, added to "as received" hazardous waste.

(5) No more than 90 days have elapsed since the treatability study for the sample was finished, or no more than one year, two years for treatability studies involving bioremediation, have elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs. Up to 500 kg of treated material from a particular waste stream from treatability studies may be archived for future evaluation up to five years from the date of initial receipt. Quantities of materials archived are counted against the total storage limit for the facility.

(6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

(7) The facility maintains records for three years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The specific information listed in Subsections R315-261-4(f)(7)(i) through R315-261-4(f)(7)(vii) shall be included for each treatability study conducted:

(i) the name, address, and EPA identification number of the generator or sample collector of each waste sample;

(ii) the date the shipment was received;

(iii) the quantity of waste accepted;

(iv) the quantity of "as received" waste in storage each day;

(v) the date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

(vi) the date the treatability study was concluded; and

(vii) the date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the EPA identification number.

(8) The facility keeps, on-site, a copy of the treatability study contract and any shipping papers associated with the transport of treatability study samples to and from the facility for a period ending three years from the completion date of each treatability study.

(9) The facility prepares and submits a report to the director, by March 15 of each year, that includes the information listed in Subsections R315-261-4(f)(9)(i) through R315-261-4(f)(9)(vii) for the previous calendar year:

(i) the name, address, and EPA identification number of the facility conducting the treatability studies;

(ii) the types, by process, of treatability studies conducted;

(iii) the names and addresses of persons for whom studies have been conducted, including their EPA identification numbers;

(iv) the total quantity of waste in storage each day;

(v) the quantity and types of waste subjected to treatability studies;

(vi) when each treatability study was conducted; and

(vii) the final disposition of residues and unused sample from each treatability study.

(10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under Section R315-261-3 and, if so, are subject to Rules R315-261 through R315-268 and R315-270, unless the residues and unused samples are returned to the sample originator under the Subsection R315-261-4(e) exemption.

(11) The facility notifies the director, by letter when the facility is no longer planning to conduct any treatability studies at the site.

(g) Dredged material that is not a hazardous waste. Dredged material that is subject to the requirements of a permit that has been issued under 404 of the Federal Water Pollution Control Act, 33 U.S.C. 1344, or [~~s~~]Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1413, is not a hazardous waste. For Subsection R315-261-4(g), the definitions in Subsections R315-261-4(g)(1) and R315-261-4(g)(2) apply:

(1) The term "dredged material" has the meaning as defined in 40 CFR 232.2;

(2) The term "permit" means:

(i) a permit issued by the [~~U.S.~~]US Army Corps of Engineers (Corps) or an approved state under [~~s~~]Section 404 of the Federal Water Pollution Control Act, 33 U.S.C. 1344;

(ii) a permit issued by the Corps under [~~s~~]Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972, 33 U.S.C. 1413; or

(iii) in the case of Corps civil works projects, the administrative equivalent of the permits referred to in Subsections R315-261-4(g)(2)(i) and R315-261-4(g)(2)(ii), as provided for in Corps regulations.

(h) Carbon dioxide stream injected for geologic sequestration. Carbon dioxide streams that are captured and transported for purposes of injection into an underground injection well subject to the requirements for Class VI Underground Injection Control wells, including the requirements in Rule R317-7, are not a hazardous waste, provided the conditions in Subsections R315-261-4(h)(1) through R315-261-4(h)(4) are met:

(1) transportation of the carbon dioxide stream shall be in compliance with [~~U.S.~~]US DOT [~~Department of Transportation~~]requirements, including the pipeline safety laws, 49 U.S.C. 60101 et seq. and regulations, 49 CFR Parts 190-199, of the [~~U.S.~~]US DOT[~~Department of Transportation~~], and pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable;

(2) injection of the carbon dioxide stream shall be in compliance with the applicable requirements for Class VI Underground Injection Control wells, including the applicable requirements in Rule R317-7;

(3) no hazardous wastes shall be mixed with, or otherwise co-injected with, the carbon dioxide stream; and

(4)(i) Any generator of a carbon dioxide stream, who claims that a carbon dioxide stream is excluded under Subsection R315-261-4(h), shall have an authorized representative, as defined in Section R315-260-10, sign a certification statement worded as follows: "I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under Subsection R315-261-4(h) has not been mixed with hazardous wastes, and I have transported the carbon dioxide stream in compliance with, or have contracted with a pipeline operator or transporter to transport the carbon dioxide stream in compliance with, [~~Department of Transportation~~]US DOT requirements, including the pipeline safety laws, 49 U.S.C. 60101 et seq., and regulations, 49 CFR Parts 190-199, of the [~~U.S. ~~]US DOT[~~Department of Transportation~~], and the pipeline safety regulations adopted and administered by a state authority pursuant to a certification under 49 U.S.C. 60105, as applicable, for injection into a well subject to the requirements for the Class VI Underground Injection Control Program of Rule R317-7."

(ii) Any Class VI Underground Injection Control well owner or operator, who claims that a carbon dioxide stream is excluded under Subsection R315-261-4(h), shall have an authorized representative, as defined in Section R315-260-10, sign a certification statement worded as follows: "I certify under penalty of law that the carbon dioxide stream that I am claiming to be excluded under Subsection R315-261-4(h) has not been mixed with, or otherwise co-injected with, hazardous waste at the Underground Injection Control (UIC) Class VI permitted facility, and that injection of the carbon dioxide stream is in compliance with the applicable requirements for UIC Class VI wells, including the applicable requirements in Rule R317-7."

(iii) The signed certification statement shall be kept on-site for no less than three years[~~,~~] and shall be made available within 72 hours of a written request from the director. The signed certification statement shall be renewed each year that the exclusion is claimed, by having an authorized representative, as defined in Section R315-260-10, annually prepare and sign a new copy of the certification statement within one year of the date of the previous statement. The signed certification statement shall also be readily accessible on the facility's publicly available website, if the website exists, as a public notification with the title of "Carbon Dioxide Stream Certification" when the exclusion is claimed.

(i) Reserved

(j)(1) Airbag waste at the airbag waste handler or during transport to an airbag waste collection facility or designated facility is not subject to regulation under Rules R315-262 through R315-268, R315-270 or R315-124, and is not subject to the notification requirements of [~~s~~]Section 3010 of RCRA provided:

(i) the airbag waste is accumulated in a quantity of no more than 250 airbag modules or airbag inflators, for no longer than 180 days;

(ii) the airbag waste is packaged in a container designed to address the risk posed by the airbag waste and labeled "Airbag Waste -- Do Not Reuse;" and

(iii) the airbag waste is sent directly to either:

(A) an airbag waste collection facility in the United States under the control of a vehicle manufacturer or their authorized representative, or under the control of an authorized person administering a remedy program in response to a recall under the National Highway Traffic Safety Administration; or

(B) a designated facility as defined in Section R315-260-10;

(iv) the transport of the airbag waste complies with applicable [~~U.S.~~]US DOT[~~ Department of Transportation~~] regulations in 49 CFR part 171 through 180 during transit; and

(v) the airbag waste handler maintains at the handler facility for no less than three years records of each off-site shipment of airbag waste and each confirmation of receipt from the receiving facility. For each shipment, these records shall, at a minimum, contain the name of the transporter and date of the shipment; name and address of receiving facility; and the type and quantity of airbag waste, that is, airbag modules or airbag inflators, in the shipment. Confirmations of receipt shall include the name and address of the receiving facility; the type and quantity of the airbag waste, that is, airbag modules and airbag inflators, received; and the date that it was received. Shipping records and confirmations of receipt shall be made available for inspection and may be satisfied by routine business records such as electronic or paper financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations of receipt.

(2) Once the airbag waste arrives at an airbag waste collection facility or designated facility, it becomes subject to applicable hazardous waste rules, and the facility receiving airbag waste is considered the hazardous waste generator for the purposes of the hazardous waste rules and shall comply with the requirements of Rule R315-262.

(3) Reuse in vehicles of defective airbag modules or defective airbag inflators subject to a recall under the National Highway Traffic Safety Administration is considered sham recycling and prohibited under Subsection R315-261-2(g).

R315-261-6. Requirements for Recyclable Materials.

(a)(1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of Subsections R315-261-6(b) and R315-261-6(c), except for the materials listed in Subsections R315-261-6(a)(2) and R315-261-6(a)(3). Hazardous wastes that are recycled shall be known as recyclable materials.

(2) The recyclable materials listed in Subsections R315-261-6(a)(2)(i) through R315-261-6(a)(2)[~~(iv)~~](v) are not subject to the requirements of Section R315-261-6 but are regulated under Sections R315-266-20 through R315-266-23, Section R315-266-70, Section R315-266-80, Sections R315-266-100 through R315-266-112, Sections R315-266-200[~~2~~] through R315-266-206, Sections R315-266-500 through R315-266-510, Sections R315-266-600 through R315-266-602, and the applicable requirements of Rules R315-268, R315-270, and R315-124:

(i) recyclable materials used in a manner constituting disposal, Sections R315-266-20 through R315-266-23;

(ii) hazardous wastes burned, as defined in Subsection R315-266-100(a), in boilers and industrial furnaces that are not regulated under Sections R315-264-340 through R315-264-345, R315-264-347, and R315-264-351 or R315-265-340 through R315-265-369, Sections R315-266-100 through R315-266-112;

(iii) recyclable materials that precious metals are reclaimed from, Section R315-266-70;[~~ and~~]

(iv) spent lead-acid batteries that are being reclaimed, Section R315-266-80; and

(v) ignitable spent refrigerants recycled for reuse, Sections R315-266-600 through R315-266-602.

(3) The recyclable materials listed in Subsections R315-261-6(a)(3)(i) through R315-261-6(a)(3)(iv) are not subject to regulation under Rules R315-262 through R315-268, R315-270, and R315-124, and are not subject to the notification requirements of [~~s~~]Section 3010 of RCRA:

(i) industrial ethyl alcohol that is reclaimed except that exports and imports of these recyclable materials shall comply with the requirements of Sections R315-262-80 through R315-262-84;

(A) the person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, shall comply with the requirements applicable to an exporter in Section R315-262-83 with the exception of Subsection R315-262-83(c); and

(B) transporters transporting a shipment for export or import shall comply with the movement document requirements listed in Subsections R315-263-20(a)(2) and R315-263-20(c);

(ii) scrap metal that is not excluded under Subsection R315-261-4(a)(13);

(iii) fuels produced from the refining of oil-bearing hazardous waste along with normal process streams at a petroleum refining facility if the wastes result from normal petroleum refining, production, and transportation practices, this exemption does not apply to fuels produced from oil recovered from oil-bearing hazardous waste, if the recovered oil is already excluded under Subsection R315-261-4(a)(12); and

(iv)(A) hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production, or transportation practices, or produced from oil reclaimed from the hazardous wastes, if the hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under Subsection R315-15-1.2(c) and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

(B) hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production, and transportation practices, if the hazardous wastes are reintroduced into a refining process after a point that contaminants are removed, so long as the fuel meets the used oil fuel specification under Subsection R315-15-1.2(c); and

(C) oil reclaimed from oil-bearing hazardous wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under Subsection R315-15-1.2(c).

(4) Used oil that is recycled and is also a hazardous waste solely because it exhibits a hazardous characteristic is not subject to the requirements of Rules R315-260 through R315-268, but is regulated under Rule R315-15. Used oil that is recycled includes any used oil that is reused, following its original use, for any purpose, including the purpose that the oil was originally used. This term includes oil that is re-refined, reclaimed, burned for energy recovery, or reprocessed.

(5) Hazardous waste that is exported or imported for purpose of recovery is subject to the requirements of Sections R315-262-80 through R315-262-84.

(b) Generators and transporters of recyclable materials are subject to the applicable requirements of Rules R315-262 and R315-263 and the notification requirements under [~~s~~]Section 3010 of RCRA, except as provided in Subsection R315-261-6(a).

(c)(1) Owners and operators of facilities that store recyclable materials before they are recycled are regulated under the applicable requirements of Sections R315-264-1 through R315-264-259, R315-264-1030 through R315-264-1102, R315-265-1 through R315-265-260, R315-265-1030 through R315-265-1102 of Rules R315-264 and R315-265, and under Rules R315-266, R315-268, R315-270, and R315-124 and the notification requirements under [~~s~~]Section 3010 of RCRA, except as provided in Subsection R315-261-6(a). The recycling process itself is exempt from regulation except as provided in Subsection R315-261-6(d).

(2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the requirements of Subsections R315-261-6(c)(2)(i) through R315-261-6(c)(2)(iv), except as provided in Subsection R315-261-6(a):

(i) notification requirements under [~~s~~]Section 3010 of RCRA;

(ii) Sections R315-265-71 and R315-265-72 dealing with the use of the manifest and manifest discrepancies;

(iii) Subsection R315-261-6(d); and

(iv) Section R315-265-75, addressing biennial reporting requirements.

(d) Owners or operators of facilities subject to permitting requirements under Section 19-6-108 with hazardous waste management units that recycle hazardous wastes are subject to the requirements of Sections R315-264-1030 through R315-264-1036 and Sections R315-264-1050 through R315-264-1065, Sections R315-265-1030 through R315-265-1035, or Sections R315-265-1050 through R315-265-1064.

R315-261-39. Exclusions and Exemptions - Conditional Exclusion for Used, Broken Cathode Ray Tubes (CRTs) and Processed CRT Glass Undergoing Recycling.

Used, broken CRTs are not solid wastes if they meet the [~~following~~]conditions listed in Subsection R315-261-39(a):

(a) Before processing. These materials are not solid wastes if they are destined for recycling and if they meet the [~~following~~]requirements found in Subsections R315-261-39(a)(1) through R315-261-39(a)(5):

(1) Storage. The broken CRTs shall be either:

(i) stored in a building with a roof, floor, and walls[~~,~~]; or

(ii) placed in a container, for example, a package or a vehicle, that is constructed, filled, and closed to minimize releases to the environment of CRT glass, including fine solid materials.

(2) Labeling. Each container [~~in which~~]that contains the used, broken CRT[~~ is contained~~] shall be labeled or marked clearly with one of the following phrases: "Used cathode ray tube(s)-contains leaded glass " or "Leaded glass from televisions or computers." It shall also be labeled: "Do not mix with other glass materials."

(3) Transportation. The used, broken CRTs shall be transported in a container meeting the requirements of Subsections R315-261-39(a)(1)(ii) and R315-261-39(a)(2).

(4) Speculative accumulation and use constituting disposal. The used, broken CRTs are subject to the limitations on speculative accumulation as defined in Subsection R315-261-39(c)(8). If they are used in a manner constituting disposal, they shall comply with the applicable requirements of Sections R315-266-20 through R315-266-23 instead of the requirements of Section R315-261-39.

(5) Exports. In addition to the applicable conditions specified in Subsections R315-261-39(a)(1) through R315-261-39(a)(4), exporters of used, broken CRTs shall comply with the [~~following~~]requirements of Subsections R315-261-39(a)(5)(i) through R315-261-39(a)(5)(xi):

(i) Notify EPA of an intended export before the CRTs are scheduled to leave the United States. A complete notification should be submitted 60 days before the initial shipment is intended to be shipped off[~~-~~]-site. This notification may cover export activities extending over a 12-~~-~~month or lesser period. The notification shall be in writing, signed by the exporter, and include the [~~following~~]information listed in Subsections R315-261-39(a)(5)(i)(A) through R315-261-39(a)(5)(i)(H):

(A) Name, [~~mailing~~]site address, telephone number, and EPA ID number, if applicable, of the exporter of the CRTs.

(B) The estimated frequency or rate at which the CRTs are to be exported and the period over which they are to be exported.

(C) The estimated total quantity of CRTs specified in kilograms.

(D) The points of entry to and departure from each foreign country through which the CRTs will pass.

(E) A description of the means by which each shipment of the CRTs will be transported; such as mode of transportation vehicle, air, highway, rail, water; types of container, drums, boxes, tanks.

(F) The name and site address of the recycler or recyclers and the estimated quantity of used CRTs to be sent to each facility, as well as the names of any alternate recyclers.

(G) A description of the manner in which the CRTs will be recycled in the foreign country that will be receiving the CRTs.

(H) The name of any transit country through which the CRTs will be sent and a description of the approximate length of time the CRTs will remain in the transit country and the nature of their handling while there.

(ii) Notifications shall be submitted electronically using [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~),~~] or its successor system.

(iii) Upon request by EPA, the exporter shall furnish to EPA any additional information that a receiving country requests to respond to a notification.

(iv) EPA shall provide a complete notification to the receiving country and any transit countries. A notification is complete when EPA receives a notification that EPA determines satisfies the requirements of Subsection R315-261-39(a)(5)(i).

(v) The export of CRTs is prohibited unless each of the [~~following~~]requirements of Subsections R315-261-39(a)(5)(v)(A) and R315-261-39(a)(5)(B) occur:

(A) The receiving country consents to the intended export. [~~When~~]If the receiving country consents in writing to the receipt of the CRTs, EPA will forward an Acknowledgment of Consent to Export CRTs to the exporter. If the receiving country objects to receipt of the CRTs or withdraws a earlier consent, EPA will notify the exporter in writing. EPA will also notify the exporter of any responses from transit countries.

(B) [~~On or after the AES filing compliance date, t~~]The exporter or a [~~U.S.~~]US authorized agent shall:

(I) Submit [~~Electronic Export Information (~~]EEI[~~)~~] for each shipment to the [~~Automated Export System (~~]AES[~~)~~] or its successor system, under the [~~International Trade Data System (~~]ITDS[~~)~~] platform, in accordance with 15 CFR 30.4(b).

(II) Include the following items in the EEI, along with the other information required under 15 CFR 30.6: EPA license code; Commodity classification code per 15 CFR 30.6(a)(12); EPA consent number; Country of ultimate destination per 15 CFR 30.6(a)(5); Date of export per 15 CFR 30.6(a)(2); Quantity of waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6(a)(15); or EPA net quantity reported in units of kilograms, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(vi) If the conditions specified on the original notification change, the exporter shall provide EPA with a written renotification of the change using the allowable methods listed in Subsection R315-261-39(a)(5)(ii), except for changes to the telephone number in Subsection R315-261-39(a)(5)(i)(A) and decreases in the quantity indicated pursuant to Subsection R315-261-39(a)(5)(i)(C). The shipment cannot take place until consent of the receiving country to the changes has been received, except for changes to information about points of entry and departure and transit countries pursuant to Subsections R315-261-39(a)(5)(i)(D) and R315-261-39(a)(5)(i)(H) and the exporter of CRTs receives from EPA a copy of the Acknowledgment of Consent to Export CRTs reflecting the receiving country's consent to the changes.

(vii) A copy of the Acknowledgment of Consent to Export CRTs shall accompany the shipment of CRTs. The shipment shall conform to the terms of the Acknowledgment.

(viii) If a shipment of CRTs cannot be delivered for any reason to the recycler or the alternate recycler, the exporter of CRTs shall renotify EPA of a change in the conditions of the original notification to allow shipment to a new recycler in accordance with Subsection R315-261-39(a)(5)(vi) and get another Acknowledgment of Consent to Export CRTs.

(ix) Exporters shall keep copies of notifications and Acknowledgments of Consent to Export CRTs for a period of three years following receipt of the Acknowledgment. Exporters may satisfy this recordkeeping requirement by keeping electronically submitted notifications or electronically generated Acknowledgements in the CRT exporter's account on [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, if these copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No CRT exporter may be held liable for the inability to produce a notification or Acknowledgement for inspection under Section R315-261-39 if the CRT exporter can demonstrate that the inability to produce copies is due exclusively to technical difficulty with [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system for which the CRT exporter bears no responsibility.

(x) CRT exporters shall file with EPA no later than March 1 of each year, an annual report summarizing the quantities, in kilograms; frequency of shipment; and ultimate destinations, for example, the facility or facilities where the recycling occurs, of the used CRTs exported during the previous calendar year. Annual reports shall also include the [~~following~~]the information listed in Subsections R315-261-39(a)(5)(x)(A) through R315-261-39(a)(5)(x)(C):

(A) the name; EPA ID number, if applicable; and mailing and site address of the exporter;

(B) the calendar year covered by the report; and

(C) a certification signed by the CRT exporter that states:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

(xi) [~~Before one year after the AES filing compliance date, annual reports shall be sent to the following mailing address: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch, (Mail Code 2255A), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460. Hand-delivered annual reports on used CRTs exported during 2016 should be sent to: Office of Land and Emergency Management, Office of Resource Conservation and Recovery, Materials Recovery and Waste Management Division, International Branch, (Mail Code 2255A), Environmental Protection Agency, William Jefferson Clinton South Building, Room 6144, 1200 Pennsylvania Ave. NW., Washington, DC 20004. Subsequently, annual reports shall be submitted to the office listed using the allowable methods specified in Subsection R315-261-39(a)(5)(ii). Exporters shall~~]Annual reports shall be submitted to the EPA using the allowable methods specified in Subsection R315-261-39(a)(5)(ii). Exporters shall keep copies of each annual report for a period of at least three years from the due date of the report. Exporters may satisfy this recordkeeping requirement by keeping electronically submitted annual reports in the CRT exporter's account on [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, [~~if~~]provided that a copy is readily available for viewing and production if requested by any EPA or authorized Utah inspector. No CRT exporter may be held liable for the inability to produce an annual report for inspection under Section R315-261-39 if the CRT exporter can demonstrate that the inability to produce the annual report is due exclusively to technical difficulty with [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system for which the CRT exporter bears no responsibility.

(b) Requirements for used CRT processing: Used, broken CRTs undergoing CRT processing as defined in Section R315-260-10 are not solid wastes if they meet the [~~following~~]requirements of Subsections R315-261-39(b)(1) and R315-261-39(b)(2):

(1) Storage. Used, broken CRTs undergoing processing are subject to the requirement of Subsection R315-261-39(a)(4).

(2) Processing.

(i) The activities specified in Subsections R315-260-10(32)(ii) and R315-260-10(32)(iii) of the definition of CRT Processing in Section R315-260-10 shall be performed within a building with a roof, floor, and walls; and

(ii) No activities may be performed that use temperatures high enough to volatilize lead from CRTs.

(c) Processed CRT glass sent to CRT glass making or lead smelting: Glass from used CRTs that is destined for recycling at a CRT glass manufacturer or a lead smelter after processing is not a solid waste unless it is speculatively accumulated as defined in Subsection R315-261-1(c)(8).

(d) Use constituting disposal. Glass from used CRTs that is used in a manner constituting disposal shall comply with the requirements of Sections R315-266-20 through R315-266-23 instead of the requirements of Section R315-261-39.

R315-261-400. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Applicability.

The requirements of Sections R315-261-400, R315-261-410, R315-261-411, and R315-261-420 apply to those areas of an entity managing hazardous secondary materials excluded under Subsection[~~s~~] R315-261-4(a)(23) or R315-261-4(a)(24) or both where hazardous secondary materials are generated or accumulated on[-] site, and facilities regulated under the standards in Sections R315-266-600 through R315-266-602 that receive ignitable spent refrigerant from off-site and that are not transfer facilities that store the refrigerants for less than ten days.

(a) A generator of hazardous secondary material, or an intermediate or reclamation facility, that accumulates 6,000 kg or less of hazardous secondary material at any time shall comply with Sections R315-261-410 and R315-261-411.

(b) A generator of hazardous secondary material, or an intermediate or reclamation facility that accumulates more than 6,000 kg of hazardous secondary material at any time shall comply with Sections R315-261-410 and R315-261-420.

(c) Facilities receiving refrigerant from off-site under Sections R315-266-600 through R315-266-602 that are not transfer facilities that store the refrigerants for less than ten days shall comply with Sections R315-261-410 and R315-261-420.

R315-261-420. Emergency Preparedness and Response for Management of Excluded Hazardous Secondary Materials - Contingency Planning and Emergency Procedures for Facilities Generating or Accumulating More Than 6,000 [~~K~~]kg of Hazardous Secondary Material or Receiving Ignitable Spent Refrigerants.

A generator or an intermediate or reclamation facility that generates or accumulates more than 6,000 kg of hazardous secondary material, or a facility receiving refrigerant from off-site in accordance with Sections R315-266-600 through R315-266-602, that is not a transfer facility that stores the refrigerants for less than ten days shall comply with the requirements in Subsections R315-261-420(a) through R315-261-420(g):

(a) Purpose and implementation of contingency plan.

(1) Each generator or an intermediate or reclamation facility that accumulates more than 6,000 kg of hazardous secondary material shall have a contingency plan for their facility. The contingency plan shall be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or nonsudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water.

(2) The [~~provisions of the~~]plan shall be carried out immediately if there is a fire, explosion, or release of hazardous secondary material or hazardous secondary material constituents that could threaten human health or the environment.

(b) Content of contingency plan.

(1) The contingency plan shall describe the actions facility personnel shall take to comply with Subsections R315-261-420(a) and R315-261-420(f) in response to fires, explosions, or any unplanned sudden or nonsudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water at the facility.

(2) If the generator or an intermediate or reclamation facility accumulating more than 6,000 kg of hazardous secondary material has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR 112, or another emergency or contingency plan, the generator need only amend that plan to incorporate hazardous waste management provisions that are enough to comply with the requirements of Rule R315-261. The hazardous secondary material generator or an intermediate or reclamation facility operating under a verified recycler variance under Subsection R315-260-13(d) may develop one contingency plan that meets the regulatory requirements. The director recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). If modifications are made to non-hazardous waste provisions in an integrated contingency plan, the changes do not trigger the need for a hazardous waste permit modification.

(3) The plan shall describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services, pursuant to Subsection R315-261-410(f).

(4) The plan shall list names, addresses, and phone numbers, office and home, of each person qualified to act as emergency coordinator, see Subsection R315-261-420(e), and this list shall be kept up-to-date. If more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order that they shall assume responsibility as alternates.

(5) The plan shall include a list of the emergency equipment at the facility, such as fire extinguishing systems, spill control equipment, communications and alarm systems, internal and external, and decontamination equipment, if this equipment is required. This list shall be kept up[-]-to[-]-date. In addition, the plan shall include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(6) The plan shall include an evacuation plan for facility personnel if there is a possibility that evacuation could be necessary. This plan shall describe signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by releases of hazardous waste or fires.

(c) Copies of contingency plan. A copy of the contingency plan and any revisions to the plan shall be:

(1) maintained at the facility; and

(2) submitted to each local police department, fire department, hospital, and state and local emergency response team that may be called upon to provide emergency services.

(d) Amendment of contingency plan. The contingency plan shall be reviewed, and immediately amended, if necessary, if:

(1) applicable rules are revised;

(2) the plan fails in an emergency;

(3) the facility changes-in its design, construction, operation, maintenance, or other circumstances-in a way that materially increases the potential for fires, explosions, or releases of hazardous secondary material or hazardous secondary material constituents, or changes the response necessary in an emergency;

(4) the list of emergency coordinators changes; or

(5) the list of emergency equipment changes.

(e) Emergency coordinator. There shall always be at least one employee either on the facility premises or on call, that is, available to respond to an emergency by reaching the facility within a short period, with the responsibility for coordinating emergency response measures. This emergency coordinator shall be thoroughly familiar with the aspects of the facility's contingency plan, the operations and activities at the facility, the location and characteristics of hazardous secondary material handled, the location of records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in Subsection R315-261-420(f). Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of hazardous secondary materials handled by the facility, and type and complexity of the facility.

(f) Emergency procedures.

(1) If there is an imminent or actual emergency situation, the emergency coordinator, or the emergency coordinator's designee if the emergency coordinator is on call, shall immediately:

(i) activate internal facility alarms or communication systems, if applicable, to notify the facility personnel; and

(ii) notify appropriate state or local agencies with designated response roles if their help is needed.

(2) If there is a release, fire, or explosion, the emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

(3) Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment shall consider both direct and indirect effects of the release, fire, or explosion, for example, the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions.

(4) If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health, or the environment, outside the facility, the emergency coordinator shall report their findings as follows:

(i) If the emergency coordinator's assessment shows that evacuation of local areas may be advisable, the emergency coordinator shall immediately notify appropriate local authorities. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated; and

(ii) The emergency coordinator shall immediately notify the Utah Department of Environmental Quality 24 hour answering service at 801-536-4123, and the National Response Center, using their 24-hour toll[-]-free number 800-424-8802. The report shall include:

(A) name and telephone number of reporter;

(B) name and address of facility;

(C) time and type of incident, for example, release, fire;

(D) name and quantity of materials involved, to the extent known;

(E) the extent of injuries, if any; and

(F) the possible hazards to human health, or the environment, outside the facility.

(5) During an emergency, the emergency coordinator shall take any reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous secondary material at the facility. These measures shall include, if applicable, stopping processes and operations, collecting and containing released material, and removing or isolating containers.

(6) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, if this is appropriate.

(7) Immediately after an emergency, the emergency coordinator shall provide for treating, storing, or disposing of recovered secondary material, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the hazardous secondary material generator can demonstrate, in accordance with Subsection R315-261-3(c) or R315-261-3(d), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with the applicable requirements of Rules R315-262, R315-263, and R315-265.

(8) The emergency coordinator shall ensure that, in the affected areas of the facility:

(i) no secondary material that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are finished; and

(ii) the emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(9) The hazardous secondary material generator shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the hazardous secondary material generator shall submit a written report on the incident to the director. The report shall include:

(i) name, address, and telephone number of the hazardous secondary material generator;

(ii) name, address, and telephone number of the facility;
(iii) date, time, and type of incident, for example, fire, explosion;
(iv) name and quantity of materials involved;
(v) the extent of injuries, if any;
(vi) an assessment of actual or potential hazards to human health or the environment, if this applies; and
(vii) estimated quantity and disposition of recovered material that resulted from the incident.
(g) Personnel training. Each employee shall be thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

R315-261-1093. Appendix IX to Rule 315-261-Hazardous Constituents.
Appendix IX to 40 CFR Part 261, [~~2022~~]2025 Ed., is incorporated by reference.

KEY: hazardous waste
Date of Last Change: [~~January 13,~~] 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-262**	**Filing ID: 57494**

Agency Information

1. Title catchline:	Environmental Quality, Waste Management and Radiation Control, Waste Management	
Building:	Multi Agency State Office Building	
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Contact persons:		
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Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:
R315-262. Hazardous Waste Generator Requirements
4. Purpose of the new rule or reason for the change:
In July of 2024, the EPA finalized rulemaking that integrates e-Manifest with hazardous waste exports and other manifest related reports, PCB manifest amendments, and technical corrections. This rulemaking amended federal regulations found in 40 CFR 262. The amendments require large and small quantity generators of hazardous waste to register with EPA's e-Manifest system. The amendments provide clarity as to when a manifest is required and provide direction on making data corrections to a manifest after it has been submitted to the EPA. Paper manifests are reduced from a five-copy form to a four-copy form. Beginning in December of 2025, exception reports must be submitted via the e-Manifest system and the requirement for a generator to keep a copy of the report is satisfied by the electronic copy in the e-Manifest system. The timeframes with regard to when generators must contact designated facilities and when exception reports must be submitted are extended. Exporters of hazardous waste must submit the Electronic Export Information to the Automated Export System for each shipment. The amendments clarify the type of address that must be provided on export documents and provide new instructions for documents and processes used for importing and exporting hazardous secondary materials and waste. The amendments update the requirements for use of a hazardous waste manifest for the export of hazardous waste and the requirements for shipments that cannot be delivered.

In December of 2024, the EPA finalized five regulatory amendments that had been withdrawn from a rulemaking in December of 2023. The amendments made technical corrections to various hazardous waste regulations including some in 40 CFR 262.

In October of 2024, the EPA finalized regulations for the management of certain hydrofluorocarbons and substitutes (ignitable spent refrigerants) under the American Innovation and Manufacturing Act of 2020. This rulemaking included amendments to rules regarding the recycling and disposal hydrofluorocarbons.

As an authorized state, Utah is required to maintain a program that is equivalent to the federal program and therefore, must amend Rule R315-262 to conform with the federal regulations.

5. Summary of the new rule or change:

Subsection R315-262-14(a)(5)(vi)(B) is amended to include facilities that meet the requirements of Sections R315-266-600 through R315-266-602.

Subsection R315-262-16(b)(1) is amended to include the limit for acute hazardous waste.

Subsections R315-262-17(a)(8)(i) and (i)(A) and (i)(B) are amended to provide clarification regarding notices for closure of a waste accumulation unit.

Subsection R315-262-20(a)(1) is amended to require large and small quantity generators to register with the EPA's e-Manifest system.

Subsection R315-262-20(a)(2) is amended to provide requirements for post-receipt manifest data corrections.

Subsections R315-262-21(f)(5), (6), and (7) are amended to incorporate changes to the paper manifest.

Subsection R315-262-24(h) is deleted because it was moved to Subsection R315-262-20(a)(2).

Subsection R315-262-42(a)(1) is amended to extend the number of days from 35 to 45 before a generator must contact the designated facility because the generator has not received the signed copy of the manifest.

Subsection R315-262-42(a)(2) is amended to extend the number of days from 45 to 60 before a large quantity generator must submit an exception report.

Subsection R315-262-42(a)(3) is added to the rules and contains the requirement for large quantity generators exception reports to be submitted electronically via the e-Manifest system beginning on 12/01/2025. The language details what must be included in the report.

Subsection R315-262-42(b) is amended by adding (2) that contains the requirement for small quantity generators exception reports to be submitted electronically via the e-Manifest system beginning on 12/01/2025.

Subsection R315-262-42(c)(2) is amended because of the changes in timeframes in R315-262-42(a)(1).

Subsections R315-262-42(d)(1) and (2) are added to the rules stating that any requirement for a generator to keep a copy of an exception report is satisfied by the electronic report in the e-Manifest system and generators cannot be held liable for the inability to produce an electronic report for inspection due to technical difficulties with the e-Manifest system.

Section R315-262-83 is amended in several subsections with updates to the processes for exporting hazardous waste to include new requirements for electronic reporting and use of the e-Manifest system by exporters of hazardous waste.

Section R315-262-84 is amended in several subsections updating the type of information that is reported on export documents and the requirements for how to submit the information.

Subsection R315-262-84(c)(4) is amended with new requirements for shipments that cannot be delivered.

Additionally, the Division of Waste Management and Radiation Control, Waste Management (Division) is correcting typographical and formatting errors in Rule R315-262.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

It is not anticipated that this rulemaking will result in any cost or savings to the state budget because the state is not an importer or exporter of hazardous waste and does not recycle ignitable spent refrigerants.

Additionally, the Division does not oversee the import or export of hazardous waste, this is handled by the EPA.

B. Local governments:

It is not anticipated that this rulemaking will result in any cost or savings to local governments because there are no local governments in Utah that import or export hazardous waste, or recycle ignitable spent refrigerants.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

It is not anticipated that the rulemaking regarding import and export of hazardous waste will result in any cost or savings to small businesses that must comply with these rules because there are no small businesses in Utah engaged in these activities.

It is anticipated that the new rules regarding management of spent ignitable refrigerants will result in cost savings, however; compliance with the new rules is voluntary and it is unknown how many of the entities affected by the rule amendments will choose to comply with the new rules so it is not possible for the Division to determine the cost savings for any entity that chooses to comply with the new rules.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

It is anticipated that the new rules regarding management of spent ignitable refrigerants will result in cost savings for non-small businesses engaged in these activities, however; compliance with the new rules is voluntary and it is unknown how many of the entities affected by the rule amendments will choose to comply with the new rules so it is not possible for the Division to determine the cost savings for any entity that chooses to comply with the new rules.

There are three non-small businesses in Utah that are importers of hazardous waste. It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

It is not anticipated that the rulemaking regarding import and export of hazardous waste will result in any cost or savings to persons other than small businesses, non-small businesses, state or local governments that must comply with these rules because there are no persons other than small businesses, non-small businesses, state or local governments in Utah engaged in these activities.

It is anticipated that the new rules regarding management of spent ignitable refrigerants will result in cost savings, however; compliance with the new rules is voluntary and it is unknown how many of the entities affected by the rule amendments will choose to comply with the new rules so it is not possible for the Division to determine the cost savings for any entity that chooses to comply with the new rules.

F. Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs above those costs that are already in place for affected persons who must comply with these rules except for the cost to the three non-small businesses in Utah that are importers of hazardous waste.

It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table					
Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$3,744	$3,744	$3,744	$3,744	$3,744
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$3,744**	**$3,744**	**$3,744**	**$3,744**	**$3,744**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**
H. Department head comments on fiscal impact and approval of regulatory impact analysis:					
The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.					

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:		
Section 19-6-105	Section 19-6-106	

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.	
A. Comments will be accepted until:	10/31/2025

10. This rule change MAY become effective on:	11/17/2025
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	09/12/2025

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-262. Hazardous Waste Generator Requirements.
R315-262-14. General -- Conditions For Exemption for a Very Small Quantity Generator.

(a) If the very small quantity generator meets the conditions for exemption listed in Section R315-262-14, hazardous waste generated by the very small quantity generator is not subject to the requirements of Rules R315-124, R315-262 through R315-268, except Sections R315-262-10 through R315-262-14, and Rule R315-270, and the notification requirements of Section 3010 of RCRA and the very small quantity generator may accumulate hazardous waste on site without complying with the requirements. The conditions for exemption are as follows:

(1) In a calendar month the very small quantity generator generates less than or equal to the amounts specified in the definition of "very small quantity generator" in Section R315-260-10[~~;~~].

(2) The very small quantity generator complies with Subsections R315-262-11(a) through R315-262-11(d)[~~;~~].

(3) If the very small quantity generator accumulates at any time greater than [~~+~~]one kilogram, 2.2 lbs, of acute hazardous waste or 100 kilograms, 220 lbs, of any residue or contaminated soil, water, or other debris resulting from the cleanup of a spill, into or on any land or water, of any acute hazardous waste listed in Section R315-261-31 or Subsection R315-261-33(e), the quantities of that acute hazardous waste are subject to the [~~following~~]additional conditions for exemption and independent requirements listed in Subsections R315-262-14(a)(3)(i) through R315-262-14(a)(3)(vii):

(i) the waste is held on site for no more than 90 days beginning on the date when the accumulated wastes exceed the amounts provided in Subsection R315-262-14(a)(3);

(ii) the conditions for exemption in Subsections R315-262-17(a) through R315-262-17(g);

(iii) notification as a "very small quantity generator" under Subsections R315-262-18(a) through R315-262-18(c);

(iv) preparation and use of the manifest in Sections R315-262-20 through R315-262-27;

(v) pre-transport requirements in Sections R315-262-30 through R315-262-35;

(vi) recordkeeping and reporting requirements of Sections R315-262-40 through R315-262-44; and

(vii) requirements for transboundary movements of hazardous wastes in Sections R315-262-80 through R315-262-89[~~;~~].

(4) If the very small quantity generator accumulates at any time 1,000 kilograms, 2,200 lbs, or greater of non-acute hazardous waste, the quantities of that hazardous waste are subject to the [~~following~~]additional conditions for exemption and independent requirements listed in Subsections R315-262-14(a)(4)(i) through R315-262-14(a)(4)(viii):

(i) the waste is held on site for no more than 180 days, or 270 days, if applicable, beginning on the date when the accumulated waste exceeds the amounts provided in Subsection R315-262-14(a)(4);

(ii) the quantity of waste accumulated on site never exceeds 6,000 kilograms, 13,200 lbs;

(iii) the conditions for exemption in Subsections R315-262-16(b)(2) through R315-262-16(f);

(iv) notification as a "very small quantity generator" under Subsections R315-262-18(a) through R315-262-18(c);

(v) preparation and use of the manifest in Sections R315-262-20 through R315-262-27;

(vi) pre-transport requirements in Sections R315-262-30 through R315-262-35;

(vii) recordkeeping and reporting requirements of Sections R315-262-40 through R315-262-44; and

(viii) requirements for transboundary movements of hazardous wastes in Sections R315-262-80 through R315-262-89[~~; and~~].

(5) A very small quantity generator that accumulates hazardous waste in amounts less than or equal to the limits in Subsections R315-262-14(a)(3) and R315-262-14(a)(4) shall either treat or dispose of its hazardous waste in an on[~~-~~] site facility or ensure delivery to an off-site treatment, storage, or disposal facility, either of which, if located in the [~~U.S.~~]US, is:

(i) permitted under Rule R315-270;

(ii) in interim status under Rules R315-265 and R315-270;

(iii) authorized to manage hazardous waste by a state with a hazardous waste management program approved under 40 CFR 271;

(iv) permitted, licensed, or registered by a state to manage municipal solid waste and, if managed in a municipal solid waste landfill is subject to Rules R315-301 through R315-322;

(v) permitted, licensed, or registered by a state to manage non-municipal non-hazardous waste and, if managed in a non-municipal non-hazardous waste disposal unit, is subject to the requirements in Rules R315-301 through R315-322 or 40 CFR 257.5 through 257.30;

(vi) a facility that:

(A)(I) beneficially uses or reuses, or legitimately recycles or reclaims its waste; or

[~~(B)~~](II) treats its waste before beneficial use or reuse, or legitimate recycling or reclamation; and

(B) for ignitable spent refrigerants regulated in accordance with Sections R315-266-600 through R315-266-602, meets the requirements of Sections R315-266-600 through R315-266-602;

(vii) for universal waste managed under Rule R315-273, a universal waste handler or destination facility subject to the requirements of Rule R315-273;

(viii) a large quantity generator under the control of the person who controls the very small quantity generator, provided the [~~following~~]conditions listed in Subsections R315-262-14(a)(5)(viii)(A) and R315-262-14(a)(5)(viii)(B) are met:

(A) The person, as defined in Section R315-260-10, who controls the very small quantity generator also controls the large quantity generator. "Control," for the purposes of Subsection R315-262-14(a)(5)(viii), means the power to direct the policies of the generator, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate generator facilities on behalf of a different person as defined in Section R315-260-10 may not be considered to "control" the generators.

(B) The very small quantity generator marks its containers of hazardous waste with:

(1) the words "Hazardous Waste"; and

(2) an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704;

(ix) a reverse distributor, as defined in Section R315-266-500, if the hazardous waste pharmaceutical is a potentially creditable hazardous waste pharmaceutical generated by a healthcare facility, as defined in Section R315-266-500; or

(x) a healthcare facility, as defined in Section R315-266-500, that meets the conditions in Subsections R315-266-502(l) and R315-266-503(b), as applicable, to accept non-creditable hazardous waste pharmaceuticals and potentially creditable hazardous waste pharmaceuticals from an off-site healthcare facility that is a very small quantity generator.

(xi) For airbag waste, an airbag waste collection facility or a designated facility subject to the requirements of Subsection R315-261-4(j).

(b) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids, whether or not sorbents have been added, in any landfill is prohibited.

(c) A very small quantity generator experiencing an episodic event may generate and accumulate hazardous waste in accordance with Sections R315-262-230 through R315-262-233 in lieu of Sections R315-262-15, R315-262-16, and R315-262-17.

R315-262-16. General -- Conditions for Exemption for a Small Quantity Generator that Accumulates Hazardous Waste.

A small quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of Rules R315-124, R315-264 through R315-266, and R315-270, or the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if the conditions for exemption listed in Section R315-262-16 are met.

(a) Generation. The generator generates in a calendar month no more than the amounts specified in the definition of "small quantity generator" in Section R315-260-10.

(b) Accumulation. The generator accumulates hazardous waste on site for no more than 180 days, unless in compliance with the conditions for exemption for longer accumulation in Subsections R315-262-16(c), R315-262-16(d) and R315-262-16(e). The [~~following~~]accumulation conditions listed in Subsections R315-262-16(b)(1) through R315-262-16(b)(6) also apply:

(1) Accumulation limit. The quantity of acute hazardous waste accumulated on site never exceeds one kilogram, 2.2 pounds, and the quantity of non-acute hazardous waste accumulated on site never exceeds 6,000 kilograms, 13,200 pounds.

(2) Accumulation of hazardous waste in containers.

(i) Condition of containers. If a container holding hazardous waste is not in good condition, or if it begins to leak, the small quantity generator shall immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in another way that complies with the conditions for exemption of Section R315-262-16.

(ii) Compatibility of waste with container. The small quantity generator shall use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be accumulated, so that the ability of the container to contain the waste is not impaired.

(iii) Management of containers.

(A) A container holding hazardous waste shall always be closed during accumulation, except when it is necessary to add or remove waste.

(B) A container holding hazardous waste may not be opened, handled, or accumulated in a manner that may rupture the container or cause it to leak.

(iv) Inspections. At least weekly, the small quantity generator shall inspect central accumulation areas. The small quantity generator shall look for leaking containers and for deterioration of containers caused by corrosion or other factors. See Subsection R315-262-16(b)(2)(i) for remedial action required if deterioration or leaks are detected.

(v) Special conditions for accumulation of incompatible wastes.

(A) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, may not be placed in a container together, unless Subsection R315-265-17(b) is complied with.

(B) Hazardous waste may not be placed in an unwashed container that previously held an incompatible waste or material, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, unless Subsection R315-265-17(b) is complied with.

(C) A container accumulating hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by a dike, berm, wall, or other device.

(3) Accumulation of hazardous waste in tanks.

(i) Reserved.

(ii) A small quantity generator of hazardous waste shall comply with the [~~following~~]general operating conditions listed in Subsections R315-262-16(b)(3)(ii)(A) through R315-262-16(b)(3)(ii)(D):

(A) Treatment or accumulation of hazardous waste in tanks shall comply with Subsection R315-265-17(b).

(B) Hazardous wastes or treatment reagents may not be placed in a tank if they could cause the tank or its inner liner to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(C) Uncovered tanks shall be operated to ensure at least 60 centimeters, 2 feet, of freeboard, unless the tank is equipped with a containment structure, for example, a dike or trench, a drainage control system, or a diversion structure, for example a stand-by tank with a capacity that equals or exceeds the volume of the top 60 centimeters, 2 feet, of the tank.

(D) If hazardous waste is continuously fed into a tank, the tank shall be equipped with a means to stop this inflow, for example a[~~,~~] waste feed cutoff system or by-pass system to a stand-by tank.

(iii) Except as noted in Subsection R315-262-16(b)(3)(iv), a small quantity generator that accumulates hazardous waste in tanks shall inspect, if present:

(A) discharge control equipment, for example waste feed cutoff systems, by-pass systems, and drainage systems at least once each operating day, to ensure that it is in good working order;

(B) data gathered from monitoring equipment, for example pressure and temperature gauges, at least once each operating day to ensure that the tank is being operated according to its design;

(C) the level of waste in the tank at least once each operating day to ensure compliance with Subsection R315-262-16(b)(3)(ii)(C);

(D) the construction materials of the tank at least weekly to detect corrosion or leaking of fixtures or seams; and

(E) the construction materials of, and the area immediately surrounding, discharge confinement structures, for example, dikes, at least weekly to detect erosion or obvious signs of leakage, for example, wet spots or dead vegetation. The generator shall remedy any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule that ensures that the problem does not lead to an environmental or human health hazard. If a hazard is imminent or has already occurred, remedial action shall be taken immediately.

(iv) A small quantity generator accumulating hazardous waste in tanks or tank systems that have full secondary containment and that either use leak detection equipment to alert personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, shall inspect at least weekly, if applicable, the areas identified in Subsections R315-262-16(b)(3)(iii)(A) through R315-262-16(b)(3)(iii)(E). Use of the alternate inspection schedule shall be documented in the generator's operating record. This documentation shall include a description of the established workplace practices at the generator.

(v) Reserved.

(vi) A small quantity generator accumulating hazardous waste in tanks shall, upon closure of the facility, remove any hazardous waste from tanks, discharge control equipment, and discharge confinement structures. At closure, as throughout the operating period, unless the small quantity generator can demonstrate, in accordance with Subsection R315-261-3(c) or R315-261-3(d), that any solid waste removed from its tank is not a hazardous waste, then it shall manage the waste in accordance with the applicable requirements of Rules R315-262, R315-263, R315-265, and R315-268.

(vii) A small quantity generator shall comply with the [~~following~~]special conditions for accumulation of ignitable or reactive waste listed in Subsections R315-262-16(b)(3)(vii)(A) through R315-262-16(b)(3)(vii)(C):

(A) Ignitable or reactive waste may not be placed in a tank, unless:

(I) the waste is treated, [~~rendered~~]made, or mixed before or immediately after placement in a tank so that the resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under Section R315-261-21 or R315-261-23 and Subsection R315-265-17(b) is complied with; or

(II) the waste is accumulated or treated in a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(III) the tank is used solely for emergencies.

(B) A small quantity generator that treats or accumulates ignitable or reactive waste in covered tanks shall comply with the buffer zone requirements for tanks contained in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," 1977 or 1981, incorporated by reference, see Section R315-260-11.

(C) A small quantity generator shall comply with the [~~following~~]special conditions for incompatible wastes listed in Subsections R315-262-16(b)(3)(vii)(C)(I) and R315-262-16(b)(3)(vii)(C)(II):

(I) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, may not be placed in a tank together, unless Subsection R315-265-17(b) is complied with.

(II) Hazardous waste may not be placed in an unwashed tank that previously held an incompatible waste or material, unless Subsection R315-265-17(b) is complied with.

(4) Accumulation of hazardous waste on drip pads. If the waste is placed on drip pads, the small quantity generator shall comply with [~~the following~~]Subsections R315-262-16(b)(4)(i) through R315-262-16(b)(4)(iii):

(i) Sections R315-265-440 through R315-265-445, except Subsection R315-265-445(c);

(ii) The small quantity generator shall remove any wastes from the drip pad at least once each 90 days. Any hazardous wastes that are removed from the drip pad at least once each 90 days are then subject to the 180-day accumulation limit in Subsection R315-262-16(b) and Section R315-262-15 if hazardous wastes are being managed in satellite accumulation areas before being moved to the central accumulation area; and

(iii) The small quantity generator shall maintain on site at the facility the [~~following~~]records listed in Subsections R315-262-16(b)(4)(iii)(A) and R315-262-16(b)(4)(iii)(B) readily available for inspection:

(A) A written description of procedures that are followed to ensure that any wastes are removed from the drip pad and associated collection system at least once each 90 days; and

(B) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal.

(5) Accumulation of hazardous waste in containment buildings. If the waste is placed in containment buildings, the small quantity generator shall comply with Sections R315-265-1100 through R315-265-1102. The generator shall label its containment buildings with the words "Hazardous Waste" in a conspicuous place easily visible to employees, visitors, emergency responders, waste handlers, or other persons on site and also in a conspicuous place provide an indication of the hazards of the contents, examples include the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic; hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding; a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704. The generator shall also maintain:

(i) the professional engineer certification that the building complies with the design standards specified in Section R315-265-1101. This certification shall be in the generator's files before operation of the unit; and

(ii) the [~~following~~]records listed in Subsections R315-262-16(b)(5)(ii)(A) through R315-262-16(b)(5)(ii)(C) by use of inventory logs, monitoring equipment, or any other effective means:

(A) A written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that the generator is consistent with maintaining the 90-day limit, and documentation that the procedures are complied with; or

(B) Documentation that the unit is emptied at least once each 90 days.

(C) Inventory logs or records with the information required by Subsections R315-262-16(b)(5)(ii)(A) and R315-262-16(b)(95)(ii)(B) shall be maintained on site and readily available for inspection.

(6) Labeling and marking of containers and tanks.

(i) Containers. A small quantity generator shall mark or label its containers with the [~~following~~]items listed in Subsections R315-262-16(b)(6)(i)(A) through R315-262-16(b)(6)(i)(C):

(A) The words "Hazardous Waste"[~~:~~].

(B) An indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704[~~; and~~].

(C) The date when each period of accumulation begins clearly visible for inspection on each container.

(ii) Tanks. A small quantity generator accumulating hazardous waste in tanks shall[~~do the following~~]:

(A) Mark or label its tanks with the words "Hazardous Waste"[~~:~~].

(B) Mark or label its tanks with an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704[~~;~~].

(C) Use inventory logs, monitoring equipment, or other records to demonstrate that hazardous waste has been emptied within 180 days of first entering the tank if using a batch process, or in the case of a tank with a continuous flow process, demonstrate that estimated volumes of hazardous waste entering the tank daily exit the tank within 180 days of first entering[~~; and~~].

(D) Keep inventory logs or records with the information required by Subsection R315-262-16(b)(6)(ii)(C) on site and readily available for inspection.

(7) Land disposal restrictions. A small quantity generator shall comply with the applicable requirements under Rule R315-268.

(8) Preparedness and prevention.

(i) Maintenance and operation of facility. A small quantity generator shall maintain and operate its facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

(ii) Required equipment. Any areas where hazardous waste is either generated or accumulated shall be equipped with the items in Subsections R315-262-16(b)(8)(ii)(A) through R315-262-16(b)(8)(ii)(D), unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified in Subsections R315-262-16(b)(8)(ii)(A) through R315-262-16(b)(8)(ii)(D) or the actual waste generation or accumulation area does not lend itself for safety reasons to have a particular kind of equipment specified in Subsections R315-262-16(b)(8)(ii)(A) through R315-262-16(b)(8)(ii)(D). A small quantity generator may determine the most appropriate locations to locate equipment necessary to prepare for and respond to emergencies.

(A) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility personnel;

(B) A device, such as a telephone, immediately available at the scene of operations, or a hand[-]held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

(C) Portable fire extinguishers, fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals, spill control equipment, and decontamination equipment; and

(D) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

(iii) Testing and maintenance of equipment. Communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, if required, shall be tested and maintained as necessary to assure its proper operation in time of emergency.

(iv) Access to communications or alarm system.

(A) [~~When~~]If hazardous waste is being poured, mixed, spread, or otherwise handled, any personnel involved in the operation shall have immediate access, for example, direct or unimpeded access, to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under Subsection R315-262-16(b)(8)(ii).

(B) In the event there is just one employee on the premises while the facility is operating, the employee shall have immediate access, for example, direct or unimpeded access, to a device, such as a telephone, immediately available at the scene of operation, or a hand[-]held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under Subsection R315-262-16(b)(8)(ii).

(v) Required aisle space. The small quantity generator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

(vi) Arrangements with local authorities.

(A) The small quantity generator shall try to make arrangements with the local police department, fire department, other emergency response teams, emergency response contractors, equipment suppliers, and local hospitals, taking into account the types and quantities of hazardous wastes handled at the facility. Arrangements may be made with the Local Emergency Planning Committee, if it is determined to be the appropriate organization for the arrangements.

(I) A small quantity generator trying to make arrangements with its local fire department shall determine the potential need for the services of the local police department, other emergency response teams, emergency response contractors, equipment suppliers, and local hospitals.

(II) As part of this coordination, the small quantity generator shall try to make arrangements, as necessary, to familiarize the organizations listed in Subsection R315-262-16(b)(8)(vi)(A) with the layout of the facility, the properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes as well as the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

(III) If more than one police or fire department might respond to an emergency, the small quantity generator shall try to make arrangements designating primary emergency authority to a specific fire or police department, and arrangements with any others to provide support to the primary emergency authority.

(B) A small quantity generator shall maintain records documenting the arrangements with the local fire department as well as any other organization necessary to respond to an emergency. This documentation shall include documentation in the operating record that either confirms the arrangements actively exist or, if no arrangements exist, confirms that the small quantity generator tried to make the arrangements.

(C) A facility that has 24-hour response capabilities may seek a waiver from the authority having jurisdiction (AHJ) over the fire code within the facility's state or locality as far as needing to make arrangements with the local fire department as well as any other organization necessary to respond to an emergency, if the waiver is documented in the operating record.

(9) Emergency procedures. The small quantity generator complies with Subsections R315-262-16(b)(9)(i) through R315-262-16(b)(9)(iv)[~~the following conditions~~] for those areas of the generator facility where hazardous waste is generated and accumulated:

(i) There shall always be at least one employee either on the premises or on call, that is, available to respond to an emergency by reaching the facility within a short period, with the responsibility for coordinating any emergency response measures specified in Subsection R315-262-16(b)(9)(iv). This employee is the emergency coordinator.

(ii) The small quantity generator shall post the [~~following~~]information listed in Subsections R315-262-16(b)(9)(ii)(A) through R315-262-16(b)(9)(ii)(C) next to telephones or in areas directly involved in the generation and accumulation of hazardous waste:

(A) The name and emergency telephone number of the emergency coordinator;

(B) Location of fire extinguishers and spill control material, and, if present, fire alarm; and

(C) The telephone number of the fire department, unless the facility has a direct alarm.

(iii) The small quantity generator shall ensure that employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies;

(iv) The emergency coordinator or the emergency coordinator's designee shall respond to any emergencies that arise. The applicable responses are as follows:

(A) In the event of a fire, call the fire department or try to extinguish it using a fire extinguisher;

(B) In the event of a spill, the small quantity generator is responsible for containing the flow of hazardous waste to the extent possible, and as soon as is practicable, cleaning up the hazardous waste and any contaminated materials or soil. The containment and cleanup can be conducted either by the small quantity generator or by a contractor on behalf of the small quantity generator;

(C) In the event of a fire, explosion, or other release that could threaten human health outside the facility or when the small quantity generator has knowledge that a spill has reached surface water, the small quantity generator shall immediately notify the National Response Center, using their 24-hour toll[-]-free number 800-424-8802 and the state environmental incident reporting program at 801-536-0200 or after hours at 801-536-4123. The report shall include[~~ the following information~~]:

(I) The name, address, and [~~U.S.~~]US EPA identification number of the small quantity generator;

(II) Date, time, and type of incident, for example, spill or fire;

(III) Quantity and type of hazardous waste involved in the incident;

(IV) Extent of injuries, if any; and

(V) Estimated quantity and disposition of recovered materials, if any.

(c) Transporting over 200 miles. A small quantity generator who shall transport its waste, or offer its waste for transportation, over a distance of 200 miles or more for off-site treatment, storage or disposal may accumulate hazardous waste on site for 270 days or less without a permit or without having interim status if the generator complies with the conditions of Subsection R315-262-16(b).

(d) Accumulation time limit extension. A small quantity generator who accumulates hazardous waste for more than 180 days, or for more than 270 days if it shall transport its waste, or offer its waste for transportation, over a distance of 200 miles or more, is subject to the requirements of Rules R315-264, R315-265, R315-268, and R315-270 unless it has been granted an extension to the 180-day, or 270-day if applicable, period. The extension may be granted by the director if hazardous wastes shall remain on site for longer than 180 days, or 270 days if applicable, due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the director on a case-by-case basis.

(e) Rejected load. A small quantity generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy requirements of Section R315-264-72 or R315-265-72 may accumulate the returned waste on site in accordance with Subsections R315-262-16(a) through R315-262-16(d). Upon receipt of the returned shipment, the generator shall:

(1) sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest; or

(2) sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

(f) A small quantity generator experiencing an episodic event may accumulate hazardous waste in accordance with Sections R315-262-230 through R315-262-233 in lieu of Section R315-262-17.

R315-262-17. General -- Conditions for Exemption for a Large Quantity Generator that Accumulates Hazardous Waste.

A large quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of Rules R315-124, R315-264 through R315-266, and R315-270, or the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if each of the [~~following~~]conditions for exemption listed in Section R315-262-17 are met:

(a) Accumulation. A large quantity generator accumulates hazardous waste on site for no more than 90 days, unless in compliance with the accumulation time limit extension or F006 accumulation conditions for exemption in Subsections R315-262-17(b) through R315-262-17(e). The [~~following~~]accumulation conditions listed in Subsections R315-262-17(a)(1) through R315-262-17(a)(5) also apply:

(1) Accumulation of hazardous waste in containers. If the hazardous waste is placed in containers, the large quantity generator shall[~~comply with the following~~]:

(i) Air emission standards. The applicable requirements of Sections R315-265-1030 through R315-265-1035, R315-265-1050 through R315-265-1064, and R315-265-1080 through R315-265-1090;

(ii) Condition of containers. If a container holding hazardous waste is not in good condition, or if it begins to leak, the large quantity generator shall immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in another way that complies with the conditions for exemption of Section R315-262-17;

(iii) Compatibility of waste with container. The large quantity generator shall use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired;

(iv) Management of containers.

(A) A container holding hazardous waste shall always be closed during accumulation, except when it is necessary to add or remove waste.

(B) A container holding hazardous waste may not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.

(v) Inspections. At least weekly, the large quantity generator shall inspect central accumulation areas. The large quantity generator shall look for leaking containers and for deterioration of containers caused by corrosion or other factors. See Subsection R315-262-17(a)(1)(ii) for remedial action required if deterioration or leaks are detected.

(vi) Special conditions for accumulation of ignitable and reactive wastes.

(A) Containers holding ignitable or reactive waste shall be located at least 15 meters, 50 feet, from the facility's property line unless a written approval is received from the [~~authority having jurisdiction~~]AHJ over the local fire code allowing hazardous waste accumulation to occur within this restricted area. A record of the written approval shall be maintained as long as ignitable or reactive hazardous waste is accumulated in this area.

(B) The large quantity generator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste shall be separated and protected from sources of ignition or reaction including [~~but not limited to~~]the following: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks that are static, electrical, or mechanical, spontaneous ignition, for example, from heat-producing chemical reactions, and radiant heat. While ignitable or reactive waste is being handled, the large quantity generator shall confine smoking and open flame to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(vii) Special conditions for accumulation of incompatible wastes.

(A) Incompatible wastes, or incompatible wastes and materials, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, may not be placed in a container together, unless Subsection R315-265-17(b) is complied with.

(B) Hazardous waste may not be placed in an unwashed container that previously held an incompatible waste or material, see appendix V of Rule R315-265 in Section R315-265-1400 for examples, unless Subsection R315-265-17(b) is complied with.

(C) A container holding a hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials or protected from them by a dike, berm, wall, or other device.

(2) Accumulation of hazardous waste in tanks. If the waste is placed in tanks, the large quantity generator shall comply with the applicable requirements of Sections R315-265-190 through R315-265-202, except Subsection R315-265-197(c) and Section R315-265-200, as well as the applicable requirements of Sections R315-265-1030 through R315-265-1035, R315-265-1050 through R315-265-1064, and R315-265-1080 through R315-265-1090.

(3) Accumulation of hazardous waste on drip pads. If the hazardous waste is placed on drip pads, the large quantity generator shall[~~comply with the following~~]:

(i) comply with Sections R315-265-440 through R315-265-445;

(ii) [~~The large quantity generator shall~~]remove wastes from the drip pad at least once each 90 days. Any hazardous wastes that are removed from the drip pad are then subject to the 90-day accumulation limit in Subsection R315-262-17(a) and Section R315-262-15, if the hazardous wastes are being managed in satellite accumulation areas before being moved to a central accumulation area; and

(iii) [~~The large quantity generator shall~~]maintain on site at the facility the [~~following~~]records listed in Subsections R315-262-17(a)(3)(iii)(A) and R315-262-17(a)(3)(iii)(B) readily available for inspection:

(A) A written description of procedures that are followed to ensure that wastes are removed from the drip pad and associated collection system at least once each 90 days; and

(B) Documentation of each waste removal, including the quantity of waste removed from the drip pad and the sump or collection system and the date and time of removal.

(4) Accumulation of hazardous waste in containment buildings. If the waste is placed in containment buildings, the large quantity generator shall comply with Sections R315-265-1100 through R315-265-1102. The generator shall label its containment building with the

words "Hazardous Waste" in a conspicuous place easily visible to employees, visitors, emergency responders, waste handlers, or other persons on site, and also in a conspicuous place provide an indication of the hazards of the contents, examples include the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic; hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding; a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704. The generator shall also maintain:

(i) the professional engineer certification that the building complies with the design standards specified in Section R315-265-1101. This certification shall be in the generator's files before operation of the unit; and

(ii) the [~~following~~]records listed in Subsections R315-262-17(a)(4)(ii)(A) through R315-262-17(a)(4)(ii)(C) by use of inventory logs, monitoring equipment, or any other effective means:

(A) [~~A~~]a written description of procedures to ensure that each waste volume remains in the unit for no more than 90 days, a written description of the waste generation and management practices for the facility showing that the generator is consistent with respecting the 90-day limit, and documentation that the procedures are complied with; or

(B) [~~D~~]documentation that the unit is emptied at least once each 90 days[~~-~~]: or

(C) [~~I~~]inventory logs or records with the information required by Subsections R315-262-17(a)(4)(ii)(A) and R315-262-17(a)(4)(ii)(B) shall be maintained on site and readily available for inspection.

(5) Labeling and marking of containers and tanks.

(i) Containers. A large quantity generator shall mark or label its containers with the [~~following~~]information listed in Subsections R315-262-17(a)(5)(i)(A) through R315-262-17(a)(5)(i)(C):

(A) The words "Hazardous Waste"[~~;~~].

(B) An indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704[~~; and~~].

(C) The date that each period of accumulation begins clearly visible for inspection on each container.

(ii) Tanks. A large quantity generator accumulating hazardous waste in tanks shall[~~- do the following~~]:

(A) [~~M~~]mark or label its tanks with the words "Hazardous Waste";

(B) [~~M~~]mark or label its tanks with an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704; and

(C) [~~U~~]use inventory logs, monitoring equipment or other records to demonstrate that hazardous waste has been emptied within 90 days of first entering the tank if using a batch process, or in the case of a tank with a continuous flow process, demonstrate that estimated volumes of hazardous waste entering the tank daily exit the tank within 90 days of first entering; and

(D) [~~K~~]keep inventory logs or records with the information required by Subsection R315-262-17(a)(5)(ii)(C) on site and readily available for inspection.

(6) Emergency procedures. The large quantity generator complies with the standards in Sections R315-262-250 through R315-262-265, Preparedness, Prevention and Emergency Procedures for Large Quantity Generators.

(7) Personnel training.

(i)(A) Facility personnel shall successfully finish a program of classroom instruction, online training, for example, computer-based or electronic, or on-the-job training that teaches them to perform their duties in a way that ensures compliance with Rule R315-262. The large quantity generator shall ensure that this program includes the elements described in the document required under Subsection R315-262-17(a)(7)(iv)(C).

(B) This program shall be directed by a person trained in hazardous waste management procedures, and shall include instruction that teaches facility personnel hazardous waste management procedures, including contingency plan implementation, relevant to their employment positions.

(C) At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including if applicable:

(I) procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(II) key parameters for automatic waste feed cutoff systems;

(III) communications or alarm systems;

(IV) response to fires or explosions;

(V) response to ground-water contamination incidents; and

(VI) shutdown of operations.

(D) For facility employees that receive emergency response training pursuant to Occupational Safety and Health Administration regulations 29 CFR 1910.120(p)(8) and 1910.120(q), the large quantity generator is not required to provide separate emergency response training pursuant to Section R315-262-17, if the overall facility training meets the conditions of exemption in Section R315-262-17.

(ii) Facility personnel shall successfully finish the program required in Subsection R315-262-17(a)(7)(i) within six months after the date of their employment or assignment to the facility, or to a new position at the facility, whichever is later. Employees may not work in unsupervised positions until they have finished the training standards of Subsection R315-262-17(a)(7)(i).

(iii) Facility personnel shall take part in an annual review of the initial training required in Subsection R315-262-17(a)(7)(i).

(iv) The large quantity generator shall maintain the [~~following~~]documents and records listed in Subsections R315-262-17(a)(7)(iv)(A) through R315-262-17(a)(7)(iv)(D) at the facility:

(A) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(B) A written job description for each position listed under Subsection R315-262-17(a)(7)(iv)(A). This description may be consistent in its degree of specificity with descriptions for other similar positions in the company location or bargaining unit, but shall include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;

(C) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under Subsection R315-262-17(a)(7)(iv)(A); and

(D) Records that document that the training or job experience, required under Subsections R315-262-17(a)(7)(i), R315-262-17(a)(7)(ii), and R315-262-17(a)(7)(iii), has been given to, and finished by, facility personnel.

(v) Training records on current personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the company.

(8) Closure. A large quantity generator accumulating hazardous wastes in containers, tanks, drip pads, and containment buildings, before closing a unit at the facility, or before closing the facility, shall meet the [~~following~~]conditions listed in Subsections R315-262-17(a)(8)(i) through R315-262-17(a)(8)(v):

(i) Notification for closure of a waste accumulation unit. A large quantity generator shall perform one of the [~~following~~]requirements listed in Subsection R315-262-17(a)(8)(i)(A) or R315-262-17(a)(8)(i)(B) when closing a waste accumulation unit, but not each waste accumulation unit:

(A) Place a notice in the operating record within 30 days after closure identifying the location of the unit within the facility, if the waste accumulation unit is subsequently reopened, the generator may remove the notice from the operating record; or

(B) Meet the closure performance standards of Subsection R315-262-17(a)(8)(iii) for container, tank, and containment building waste accumulation units or Subsection R315-262-17(a)(8)(iv) for drip pads and notify the director following the procedures in Subsection R315-262-17(a)(8)(ii)(B) for the waste accumulation unit.[~~ If the waste accumulation unit is subsequently reopened, the generator may remove the notice from the operating record.~~]

(ii) Notification for closure of the facility.

(A) Notify the director using EPA [~~f~~]Form 8700-12 no later than 30 days before closing the facility.

(B) Notify the director using EPA [~~f~~]Form 8700-12 within 90 days after closing the facility that it has complied with the closure performance standards of Subsection R315-262-17(a)(8)(iii) or R315-262-17(a)(8)(iv). If the facility cannot meet the closure performance standards of Subsection R315-262-17(a)(8)(iii) or R315-262-17(a)(8)(iv), notify the director using EPA [~~f~~]Form 8700-12 that it will close as a landfill under Section R315-265-310, in the case of a container, tank or containment building units, or for a facility with drip pads, notify using EPA [~~f~~]Form 8700-12 that it will close under the standards of Subsection R315-265-445(b).

(C) A large quantity generator may request additional time to clean close, but it shall notify the director using EPA [~~f~~]Form 8700-12 within 75 days after the date provided in Subsection R315-262-17(a)(8)(ii)(A) to request an extension and provide an explanation as to why the additional time is required.

(iii) Closure performance standards for container, tank systems, and containment building waste accumulation units.

(A) At closure, the generator shall close the waste accumulation unit or facility in a manner that:

(I) minimizes the need for further maintenance by controlling, minimizing, or eliminating, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and

(II) removes or decontaminates contaminated equipment, structures and soil and any remaining hazardous waste residues from waste accumulation units including containment system components such as pads of liners, contaminated soils, and subsoils, bases, and structures and equipment contaminated with waste, unless Subsection R315-261-3(d) applies.

(III) Any hazardous waste generated in the process of closing either the generator's facility or units accumulating hazardous waste shall be managed in accordance with the applicable standards of Rules R315-262, R315-263, R315-265 and R315-268, including removing any hazardous waste contained in these units within 90 days of generating it and managing these wastes in a hazardous waste permitted treatment, storage and disposal facility or interim status facility.

(IV) If the generator demonstrates that any contaminated soils and wastes cannot be practicably removed or decontaminated as required in Subsection R315-262-17(a)(8)(ii)(A)(II), then the waste accumulation unit is considered to be a landfill and the generator shall close the waste accumulation unit and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, Section R315-265-310. In addition, for the purposes of closure, post-closure, and financial responsibility, such a waste accumulation unit is then considered to be a landfill, and the generator shall meet the requirements for landfills specified in Sections R315-265-110 through R315-265-121 and R315-265-140 through R315-265-148.

(iv) Closure performance standards for drip pad waste accumulation units. At closure, the generator shall comply with the closure requirements of Subsections R315-262-17(a)(8)(ii) and R315-262-17(a)(8)(iii)(A)(I) and R315-262-17(a)(8)(iii)(A)(III), and Subsections R315-265-445(a) and R315-265-445(b).

(v) The closure requirements of Subsection R315-262-17(a)(8) do not apply to satellite accumulation areas.

(9) Land disposal restrictions. The large quantity generator complies with the applicable requirements under Rule R315-268.

(b) Accumulation time limit extension. A large quantity generator who accumulates hazardous waste for more than 90 days is subject to the requirements of Rules R315-124, R315-264 through R315-266, R315-268, and R315-270 and the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, unless it has been granted an extension to the 90-day period. The extension may be granted by the director if hazardous wastes shall remain on site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the director on a case-by-case basis.

(c) Accumulation of F006. A large quantity generator who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste number F006, may accumulate F006 waste on site for more than 90 days, but not more than 180 days without being subject to Rules R315-124, R315-264 through R315-266 and R315-270, and the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if it complies with the [~~following~~]additional conditions for exemption contained in Subsections R315-262-17(c)(1) through R315-262-17(c)(4):

(1) The large quantity generator has implemented pollution prevention practices that reduce the amount of any hazardous substances, pollutants, or contaminants entering F006 or otherwise released to the environment before its recycling;

(2) The F006 waste is legitimately recycled through metals recovery;

(3) No more than 20,000 kilograms of F006 waste is accumulated on site at any one time; and

(4) The F006 waste is managed in accordance with one or a combination of the [~~following~~]requirements contained in Subsections R315-262-17(c)(4)(i) through R315-262-17(c)(4)(v):

(i)(A) If the F006 waste is placed in containers, the large quantity generator shall comply with the applicable conditions for exemption in Subsection R315-262-17(a)(1).

(B) If the F006 is placed in tanks, the large quantity generator shall comply with the applicable conditions for exemption of Subsection R315-262-17(a)(2).

(C) If the F006 is placed in containment buildings, the large quantity generator shall comply with Sections R315-265-1100 through R315-265-1102 and has placed its professional engineer certification that the building complies with the design standards specified in Section R315-265-1101 in the facility's files before operation of the unit. The large quantity generator shall maintain the [~~following~~]records listed in Subsections R315-262-17(c)(4)(i)(C)(I) and R315-262-17(c)(4)(i)(C)(II):

(I) A written description of procedures to ensure that the F006 waste remains in the unit for no more than 180 days, a written description of the waste generation and management practices for the facility showing that they are consistent with the 180-day limit, and documentation that the large quantity generator is complying with the procedures; or

(II) Documentation that the unit is emptied at least once each 180 days.

(ii) The large quantity generator is exempt from the requirements in Sections R315-265-110 through R315-265-121 and R315-265-140 through R315-265-148 except for those referenced in Subsection R315-262-17(a)(8).

(iii) The date that each period of accumulation begins is clearly marked and shall be clearly visible for inspection on each container;

(iv) While being accumulated on site, each container and tank is labeled or marked clearly with:

(A) the words "Hazardous Waste"; and

(B) an indication of the hazards of the contents, examples include:

(I) the applicable hazardous waste characteristics, that is, ignitable, corrosive, reactive, toxic;

(II) hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E, labeling, or subpart F, placarding;

(III) a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or

(IV) a chemical hazard label consistent with the National Fire Protection Association code 704.

(v) The large quantity generator complies with the requirements in Subsections R315-262-17(a)(6) and R315-262-17(a)(7).

(d) F006 transported over 200 miles. A large quantity generator who also generates wastewater treatment sludges from electroplating operations that meet the listing description for the EPA hazardous waste number F006, and who must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more for off-site metals recovery, may accumulate F006 waste on site for more than 90 days, but not more than 270 days without being subject to Rules R315-124, R315-264 through R315-266, R315-270, and the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if the large quantity generator complies with the conditions for exemption of Subsections R315-262-17(c)(1) through R315-262-17(c)(4).

(e) F006 accumulation time extension. A large quantity generator accumulating F006 in accordance with Subsections R315-262-17(c) and R315-262-17(d) who accumulates F006 waste on site for more than 180 days, or for more than 270 days if the generator must transport this waste, or offer this waste for transportation, over a distance of 200 miles or more, or who accumulates more than 20,000 kilograms of F006 waste on site is an operator of a storage facility and is subject to the requirements of Rules R315-124, R315-264, R315-265, and R315-270, and the notification requirements of Section 3010 of RCRA, for treatment, storage, and disposal facilities, unless the generator has been granted an extension to the 180-day, or 270-day if applicable, period or an exception to the 20,000 kilogram accumulation limit. These extensions and exceptions may be granted by the director if F006 waste shall remain on site for longer than 180 days, or 270 days if applicable, or if more than 20,000 kilograms of F006 waste shall remain on site due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days or an exception to the accumulation limit may be granted at the discretion of the director on a case-by-case basis.

(f) Consolidation of hazardous waste received from very small quantity generators. Large quantity generators may accumulate on site hazardous waste received from very small quantity generators under control of the person, as defined in Section R315-260-10, who controls the large quantity generator facility without a storage permit or interim status and without complying with the requirements of Rules R315-124, R315-264 through R315-266, R315-268, and R315-270, and the notification requirements of Section 3010 of RCRA for treatment, storage, and disposal facilities, if they comply with Subsections R315-262-17(f)(1) through R315-262-17(f)(3). "Control," for the purposes of Subsection R315-262-17(f), means the power to direct the policies of the generator, whether by the ownership of stock, voting rights, or otherwise, except that contractors who operate generator facilities on behalf of a different person may not be considered to "control" the generators.

(1) The large quantity generator notifies the director at least 30 days before receiving the first shipment from a very small quantity generators using EPA Form 8700-12; and

(i) Identifies on the form the names and site addresses for the very small quantity generators as well as the name and business telephone number for a contact person for the very small quantity generators; and

(ii) Submits an updated Site ID form, EPA Form 8700-12, within 30 days after a change in the name or site address for the very small quantity generator.

(2) The large quantity generator maintains records of shipments for three years from the date the hazardous waste was received from the very small quantity generator. These records shall identify the name, site address, and contact information for the very small quantity generator and include a description of the hazardous waste received, including the quantity and the date the waste was received.

(3) The large quantity generator complies with the independent requirements identified in Subsection R315-262-10(a)(1)(iii) and the conditions for exemption in Subsection R315-262-17(f) for hazardous wastes received from a very small quantity generator. For purposes of the labeling and marking rules in Subsection R315-262-17(a)(5), the large quantity generator shall label the container or unit with the date accumulation started, that is, the date the hazardous waste was received from the very small quantity generator. If the large quantity generator is consolidating incoming hazardous waste from a very small quantity generator with either its own hazardous waste or with hazardous waste from other very small quantity generators, the large quantity generator shall label each container or unit with the earliest date any hazardous waste in the container was accumulated on site.

(g) Rejected load. A large quantity generator who sends a shipment of hazardous waste to a designated facility with the understanding that the designated facility can accept and manage the waste and later receives that shipment back as a rejected load or residue in accordance with the manifest discrepancy requirements of Section R315-264-72 or R315-265-72 may accumulate the returned waste on site in accordance with Subsections R315-262-17(a) and R315-262-17(b). Upon receipt of the returned shipment, the generator shall:

(1) sign Item 18c of the manifest, if the transporter returned the shipment using the original manifest; or

(2) sign Item 20 of the manifest, if the transporter returned the shipment using a new manifest.

R315-262-20. Manifest Requirements Applicable to Small and Large Quantity Generators -- General Requirements.

(a)(1) A generator [~~who~~]that transports, or offers for transport a hazardous waste for off-site treatment, storage, or disposal, or a treatment, storage, [~~and~~]or disposal facility who offers for transport a rejected hazardous waste load, shall prepare a [~~M~~]manifest, [~~(~~]OMB Control number 2050-0039,[~~)~~] on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A. Large and small quantity generators shall register with the EPA's e-Manifest system to get signed and dated copies of completed manifests from the EPA e-Manifest system and comply with Subsection R315-262-20(a)(2).

(2) [~~Reserved.~~]Post-receipt manifest data corrections. After facilities have certified that the manifest is complete, by signing it when it is submitted to the EPA e-Manifest system, any post-receipt data corrections may be submitted at any time by any interested person, for example a waste handler, named on the manifest. If corrections are requested by the director for portions of the manifest that a generator shall complete, the generator shall address the data correction within 30 days from the date of the request. Data correction submissions shall be made electronically via the post-receipt data corrections process as described in Subsection R315-265-71(l), which applies to corrections made to either paper or electronic manifests.

(3) Electronic manifest. In lieu of using the manifest form specified in Subsection R315-262-20(a)(1), a person required to prepare a manifest under Subsection R315-262-20(a)(1) may prepare and use an electronic manifest, provided that the person:

(i) [~~C~~]complies with the requirements in Section R315-262-24 for use of electronic manifests[~~,~~]; and

(ii) [~~C~~]complies with the requirements of 40 CFR 3.10 for the reporting of electronic documents to EPA.

(b) A generator shall designate on the manifest one facility [~~which~~]that is permitted to handle the waste described on the manifest.

(c) A generator may also designate on the manifest one alternate facility [~~which~~]that is permitted to handle [~~his~~]the generator's waste in the event an emergency prevents delivery of the waste to the primary designated facility.

(d) If the transporter [~~is unable to~~]cannot deliver the hazardous waste to the designated facility or the alternate facility, the generator shall either designate another facility or instruct the transporter to return the waste.

(e) The requirements of Sections R315-262-20 through R315-262-27 do not apply to hazardous waste produced by generators of greater than 100 kg but less than 1,000 kg in a calendar month where:

(1) [~~T~~]the waste is reclaimed under a contractual agreement pursuant to which:

(i) [~~T~~]the type of waste and frequency of shipments are specified in the agreement; and

(ii) [~~T~~]the vehicle used to transport the waste to the recycling facility and to deliver regenerated material back to the generator is owned and operated by the reclaimer of the waste; and

(2) [~~T~~]the generator maintains a copy of the reclamation agreement in [~~his~~]the generator's files for a period of at least three years after termination or expiration of the agreement.

(f) The requirements of Sections R315-262-20 through R315-262-27 and Subsection R315-262-32(b) do not apply to the transport of hazardous wastes on a public or private right-of-way within or along the border of contiguous property under the control of the same person,

even if [~~such~~]the contiguous property is divided by a public or private right-of-way. [~~Notwithstanding Subsection R315-263-10(a), t~~]The generator or transporter shall comply with the requirements for transporters set forth in Sections R315-263-30 and R315-262-31 in the event of a discharge of hazardous waste on a public or private right-of-way.

R315-262-21. Manifest Requirements Applicable to Small and Large Quantity Generators -- Manifest Tracking Numbers, Manifest Printing, and Obtaining Manifests.

(a)(1) A registrant may not print, or have printed, the manifest for use of distribution unless it has received approval from the EPA Director of the Office of Resource Conservation and Recovery to do so under Subsections R315-262-21(c) and R315-262-21(e).

(2) The approved registrant is responsible for ensuring that the organizations identified in its application are in compliance with the procedures of its approved application and the requirements of Section R315-262-21. The registrant is responsible for assigning manifest tracking numbers to its manifests.

(b) A registrant shall submit an initial application to the EPA Director of the Office of Resource Conservation and Recovery that contains the[~~following information~~]:

(1) [~~N~~]name and mailing address of registrant;

(2) [~~N~~]name, telephone number and email address of contact person;

(3) [~~B~~]brief description of registrant's government or business activity;

(4) EPA identification number of the registrant, if applicable;

(5) [~~D~~]description of the scope of the operations that the registrant plans to undertake in printing, distributing, and using its manifests, including:

(i) A description of the printing operation. The description should include an explanation of whether the registrant intends to print its manifests in-house, [~~i.e.,~~]that is using its own printing establishments, or through a separate, [~~i.e.,~~]that is unaffiliated, printing company. If the registrant intends to use a separate printing company to print the manifest on its behalf, the application shall identify this printing company and discuss how the registrant will oversee the company. If this includes the use of intermediaries, [~~e.g.,~~]for example prime and subcontractor relationships, the role of each shall be discussed. The application shall provide the name and mailing address of each company. It also shall provide the name and telephone number of the contact person at each company.

(ii) A description of how the registrant will ensure that its organization and unaffiliated companies, if any, comply with the requirements of Section R315-262-21. The application shall discuss how the registrant will ensure that a unique manifest tracking number will be pre-printed on each manifest. The application shall describe the internal control procedures to be followed by the registrant and unaffiliated companies to ensure that numbers are tightly controlled and remain unique. In particular, the application shall describe how the registrant will assign manifest tracking numbers to its manifests. If computer systems or other infrastructure will be used to maintain, track, or assign numbers, these should be indicated. The application shall also [~~indicate~~]state how the printer will pre-print a unique number on each form, [~~e.g.,~~]for example crash or press numbering. The application also shall explain the other quality procedures to be followed by each establishment and printing company to ensure that [~~all~~]the required print specifications are consistently achieved and that printing violations are identified and corrected at the earliest practicable time.

(iii) An indication of whether the registrant intends to use the manifests for its own business operations or to distribute the manifests to a separate company or to the general public, [~~e.g.~~]for example, for purchase.

(6) A brief description of the qualifications of the company that will print the manifest. The registrant may use readily available information to do so, [~~e.g.,~~]for example corporate brochures, product samples, customer references, documentation of ISO certification, so long as [~~such~~]the information pertains to the establishments or company being proposed to print the manifest.

(7) Proposed unique three-letter manifest tracking number suffix. If the registrant is approved to print the manifest, the registrant shall use this suffix to pre-print a unique manifest tracking number on each manifest.

(8) A signed certification by an [~~duly~~]authorized employee of the registrant that the organizations and companies in its application will comply with the procedures of its approved application and the requirements of Section R315-262-21 and that it will notify the EPA Director of the Office of Resource Conservation and Recovery of any duplicated manifest tracking numbers on manifests that have been used or distributed to other parties as soon as this becomes known.

(c) EPA shall review the application submitted under Subsection R315-262-21(b) and either approve it or request additional information or modification before approving it.

(d)(1) Upon EPA approval of the application under Subsection R315-262-21(c), EPA shall provide the registrant an electronic file of the manifest, continuation sheet, and manifest instructions and ask the registrant to submit three fully assembled manifests and continuation sheet samples, except as noted in Subsection R315-262-21(d)(3). The registrant's samples shall meet [~~all of~~]the specifications in Subsection R315-262-21(f) and be printed by the company that will print the manifest as identified in the application approved under Subsection R315-262-21(c).

(2) The registrant shall submit a description of the manifest samples as follows:

(i) Paper type, [~~i.e.,~~]that is manufacturer and grade of the manifest paper;

(ii) Paper weight of each copy;

(iii) Ink color of the manifest's instructions. If screening of the ink was used, the registrant shall [~~indicate~~]state the extent of the screening; and

(iv) Method of binding the copies.

(3) The registrant need not submit samples of the continuation sheet if it will print its continuation sheet using the same paper type, paper weight of each copy, ink color of the instructions, and binding method as its manifest form samples.

(e) EPA shall evaluate the forms and either approve the registrant to print them as proposed or request additional information or modification to them before approval. EPA shall notify the registrant of its decision by mail. The registrant cannot use or distribute its forms

until EPA approves them. An approved registrant shall print the manifest and continuation sheet according to its application approved under Subsection R315-262-21(c) and the manifest specifications in Subsection R315-262-21(f). It also shall print the forms according to the paper type, paper weight, ink color of the manifest instructions and binding method of its approved forms.

(f) Paper manifests and continuation sheets shall be printed according to the [~~following~~]specifications listed in Subsections R315-262-21(f)(1) through R315-262-21(f)(8):

(1) The manifest and continuation sheet shall be printed with the exact format and appearance as EPA Forms 8700-22 and 8700-22A, respectively. However, information required to complete the manifest may be pre-printed on the manifest form.

(2) A unique manifest tracking number assigned in accordance with a numbering system approved by EPA shall be pre-printed in Item 4 of the manifest. The tracking number shall consist of a unique three-letter suffix following nine digits.

(3) The manifest and continuation sheet shall be printed on 8-1/2 x 11-inch white paper, excluding common stubs, [~~e.g.,~~]for example top- or side-bound stubs. The paper shall be durable enough to withstand normal use.

(4) The manifest and continuation sheet shall be printed in black ink that can be legibly photocopied, scanned, or faxed, except that the marginal words indicating copy distribution shall be printed with a distinct ink color or with another method; [~~e.g.,~~]for example white text against black background in text box, or, black text against grey background in text box; that clearly distinguishes the copy distribution notations from the other text and data entries on the form.

(5) The manifest and continuation sheet shall be printed as [~~five~~]four-copy forms. Copy-to-copy registration shall be exact within 1/32nd of an inch. Handwritten and typed impressions on the form shall be legible on [~~all~~]the [~~five~~]four copies. Copies shall be bound together by one or more common stubs that reasonably ensure that they will not become detached inadvertently during normal use.

(6) Each copy of the manifest and continuation sheet shall [~~indicate~~]state how the copy shall be distributed, as follows:

(i) Page 1, top copy: "US Designated [~~f~~]Facility or US Exporter to the EPA's e-Manifest [~~s~~]System";

(ii) Page 2: "Designated [~~f~~]Facility to [~~g~~]Generator";

(iii) Page 3: "[~~Designated facility~~]Transporter [~~c~~]Copy"; and

(iv) Page 4: [~~"Transporter copy"; and~~

~~(v) Page 5, ~~]bottom copy: "Generator's [~~i~~]Initial [~~c~~]Copy".

(7) The instructions for the manifest form, EPA Form 8700-22, and the manifest continuation sheet, EPA Form 8700-22A, shall be printed in accordance with the content that is currently approved under OMB Control Number 2050-0039. [~~and published to the e-Manifest program's web site. ~~]The instructions shall appear legibly on the back of the copies of the manifest and continuation sheet as provided in Subsection R315-262-21(f). The instructions [~~shall~~]may not be visible through the front of the copies when photocopied or faxed.

(i) Manifest Form 8700-22.

(A) The "Instructions for Generators" on Copy [~~5~~]4;

(B) The "Instructions for International Shipment Block" and "Instructions for Transporters" on Copy [~~4~~]3; and

(C) The "Instructions for Treatment, Storage, and Disposal Facilities" on Copy [~~3~~]2.

(ii) Manifest Form 8700-22A.

(A) The "Instructions for Generators" on Copy [~~5~~]4;

(B) The "Instructions for International Shipment Block" and "Instructions for Transporters" on Copy [4]3; and

(C) The "Instructions for Exporters or Owners and Operators of Receiving Facilities Designated on the Manifest[~~Treatment, Storage, and Disposal Facilities~~]" on Top Copy, Page 1[~~3~~].

(8) The designated facility copy of each manifest and continuation sheet shall include in the bottom margin the following warning in prominent font: "If you received this manifest, you have responsibilities under the e-Manifest Act. See instructions on reverse side."

(g)(1) A generator may use manifests printed by any source so long as the source of the printed form has received approval from EPA to print the manifest under Subsections R315-262-21(c) and R315-262-21(e). A registered source may be a:

(i) [~~S~~]state agency;

(ii) [~~C~~]commercial printer;

(iii) [~~H~~]hazardous waste generator, transporter or TSDF; or

(iv) [~~H~~]hazardous waste broker or other preparer who prepares or arranges shipments of hazardous waste for transportation.

(2) A generator shall determine whether the generator state or the consignment state for a shipment regulates any additional wastes, beyond those regulated [~~F~~]federally, as hazardous wastes under these states' authorized programs. Generators also shall determine whether the consignment state or generator state requires the generator to submit any copies of the manifest to these states. In cases where the generator shall supply copies to either the generator's state or the consignment state, the generator is responsible for supplying legible photocopies of the manifest to these states.

(h)(1) If an approved registrant would like to update any of the information provided in its application approved under Subsection R315-262-21(c), [~~e.g.~~]for example, to update a company phone number or name of contact person, the registrant shall revise the application and submit it to the EPA Director of the Office of Resource Conservation and Recovery, along with an indication or explanation of the update, as soon as practicable after the change occurs. The Agency either shall approve or deny the revision. If the Agency denies the revision, it shall explain the reasons for the denial, and it shall contact the registrant and request further modification before approval.

(2) If the registrant would like a new tracking number suffix, the registrant shall submit a proposed suffix to the EPA Director of the Office of Resource Conservation and Recovery, along with the reason for requesting it. The Agency shall either approve the suffix or deny the suffix and provide an explanation why it is not acceptable.

(3) If a registrant would like to change the paper type, paper weight, ink color of the manifest instructions, or binding method of its manifest or continuation sheet [~~subsequent to~~]after approval under Subsection R315-262-21(e), then the registrant shall submit three samples of the revised form for EPA review and approval. If the approved registrant would like to use a new printer, the registrant shall submit three manifest samples printed by the new printer, along with a brief description of the printer's qualifications to print the manifest. EPA shall

evaluate the manifests and either approve the registrant to print the forms as proposed or request additional information or modification to them before approval. EPA shall notify the registrant of its decision by mail. The registrant cannot use or distribute its revised forms until EPA approves them.

(i) If, [~~subsequent to~~]after its approval under Subsection R315-262-21(e), a registrant typesets its manifest or continuation sheet instead of using the electronic file of the forms provided by EPA, it shall submit three samples of the manifest or continuation sheet to the registry for approval. EPA shall evaluate the manifests or continuation sheets and either approve the registrant to print them as proposed or request additional information or modification to them before approval. EPA shall notify the registrant of its decision by mail. The registrant cannot use or distribute its typeset forms until EPA approves them.

(j) EPA may exempt a registrant from the requirement to submit form samples under Subsection R315-262-21(d) or R315-262-21(h)(3) if the Agency is persuaded that a separate review of the registrant's forms would serve little purpose in informing an approval decision; [~~e.g.,~~]for example a registrant certifies that it will print the manifest using the same paper type, paper weight, ink color of the instructions and binding method of the form samples approved for some other registrant. A registrant may request an exemption from EPA by indicating why an exemption is warranted.

(k) An approved registrant shall notify EPA by phone or email as soon as it becomes aware that it has duplicated tracking numbers on any manifests that have been used or distributed to other parties.

(l) If, [~~subsequent to~~]after approval of a registrant under Subsection R315-262-21(e), EPA becomes aware that the approved paper type, paper weight, ink color of the instructions, or binding method of the registrant's form is unsatisfactory, EPA shall contact the registrant and require modifications to the form.

(m)(1) EPA may suspend and, if necessary, revoke printing privileges if [~~we find~~]it is determined that the registrant:

(i) [~~H~~]has used or distributed forms that deviate from its approved form samples in regard to paper weight, paper type, ink color of the instructions, or binding method; or

(ii) [~~E~~]exhibits a continuing pattern of behavior in using or distributing manifests that contain duplicate manifest tracking numbers.

(2) EPA shall send a warning letter to the registrant that specifies the date by which it shall come into compliance with the requirements. If the registrant does not come in compliance by the specified date, EPA shall send a second letter notifying the registrant that EPA has suspended or revoked its printing privileges. An approved registrant shall provide information on its printing activities to EPA if requested.

R315-262-24. Manifest Requirements Applicable to Small and Large Quantity Generators -- Use of the Electronic Manifest.

(a) Legal equivalence to paper manifests. Electronic manifests that are gotten, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with Section R315-262-24 in lieu of EPA Forms 8700-22 and 8700-22A are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy any requirement in Title R315 to get, complete, sign, provide, use, or keep a manifest.

(1) Any requirement in Title R315 to sign a manifest or manifest certification by hand, or to get a handwritten signature, is satisfied by signing with or getting a valid and enforceable electronic signature within the meaning of 40 CFR 262.25.

(2) Any requirement in Title R315 to give, provide, send, forward, or return to another person a copy of the manifest is satisfied when an electronic manifest is transmitted to the other person by submission to the system.

(3) Any requirement in Title R315 for a generator to keep or keep a copy of each manifest is satisfied by retention of a signed electronic manifest in the generator's account on the national e-Manifest system, if these copies are readily available for viewing and production if requested by any EPA or Utah inspector.

(4) No generator may be held liable for the inability to produce an electronic manifest for inspection under Section R315-262-24 if the generator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the generator bears no responsibility.

(b) A generator may participate in the electronic manifest system either by accessing the electronic manifest system from its own electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the generator's site by the transporter who accepts the hazardous waste shipment from the generator for off-site transportation.

(c) Restriction on use of electronic manifests. A generator may use an electronic manifest for the tracking of hazardous waste shipments involving any RCRA hazardous waste only if it is known when the manifest is originated that each waste handler named on the manifest participates in the use of the electronic manifest.

(1) Except that a generator may sign by hand and keep a paper copy of the electronic manifest signed by hand by the initial transporter, in lieu of executing the generator copy electronically, thereby enabling the transporter and subsequent waste handlers to execute the rest of the manifest copies electronically.

(d) Requirement for one printed copy. To the extent the Hazardous Materials regulation on shipping papers for carriage by public highway requires shippers of hazardous materials to supply a paper document for compliance with 49 CFR 177.817, a generator originating an electronic manifest shall also provide the initial transporter with one printed copy of the electronic manifest.

(e) Special procedures if electronic manifest is unavailable. If a generator has prepared an electronic manifest for a hazardous waste shipment, but the electronic manifest system becomes unavailable for any reason before the time that the initial transporter has signed electronically to acknowledge the receipt of the hazardous waste from the generator, then the generator shall get and complete a paper manifest and if necessary, a continuation sheet, [~~(~~]EPA Forms 8700-22 and 8700-22A,[~~)~~] in accordance with the manifest instructions, and use these paper forms from this point forward in accordance with the requirements of Section R315-262-23.

(f) Special procedures for electronic signature methods undergoing tests. If a generator has prepared an electronic manifest for a hazardous waste shipment, and signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration

tests aimed at demonstrating the practicality or legal dependability of the signature method, then the generator shall also sign with an ink signature the generator or offeror certification on the printed copy of the manifest provided under Subsection R315-262-24(d).

[~~(g) Reserved.~~

~~(h) Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person, such as the waste handler, named on the manifest. Generators may participate electronically in the post-receipt data corrections process by following the process described in Subsection R315-264-71(l), which applies to corrections made to either paper or electronic manifest records.~~]

R315-262-42. Recordkeeping and Reporting Applicable to Small and Large Quantity Generators -- Exception Reporting.

(a)(1) A large quantity generator who does not receive a copy of the manifest with the [~~handwritten~~]signature of the owner or operator of the designated facility within [~~3~~]45 days of the date the waste was accepted by the initial transporter shall contact the transporter, [~~or~~]the owner or operator of the designated facility, or both, to determine the status of the hazardous waste.

(2) A large quantity generator shall submit an Exception Report to the director if the generator has not received a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within [~~45~~]60 days of the date the waste was accepted by the initial transporter. The Exception Report shall include:

(i) a legible copy of the manifest that the generator does not have confirmation of delivery; and

(ii) a cover letter signed by the generator or the generator's authorized representative explaining the efforts taken to locate the hazardous waste and the results of those efforts.

(3) Beginning on December 1, 2025, the EPA will no longer accept mailed paper Exception Reports from large quantity generators. Beginning on December 1, 2025, a large quantity generator shall submit an Exception Report to the EPA e-Manifest system if the generator has not received a copy of the manifest with the signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter. The Exception Report shall include:

(i) a legible copy of the manifest for which the generator does not have confirmation of delivery; and

(ii) an explanation of the efforts taken to locate the hazardous waste and the results of those efforts.

(b) A small quantity generator of hazardous waste who does not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated facility within 60 days of the date the waste was accepted by the initial transporter shall:[~~ submit a legible copy of the manifest, with an indication that the generator has not received confirmation of delivery, to the director.~~]

(1) submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the director.

([~~1~~]i) The submission to the director need only be a handwritten or typed note on the manifest itself, or on an attached sheet of paper, stating that the return copy was not received.

(2) Beginning on December 1, 2025, the EPA will no longer accept mailed paper Exception Reports from small quantity generators. Beginning on December 1, 2025, a small quantity generator shall submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the EPA e-Manifest system. Generators that are normally VSQGs but are subject to the SQG provisions of Subsection R315-262-42(b)(2) because of an episodic generation event pursuant to Subsection R315-262-232(a)(5), shall submit a legible copy of the manifest, with some indication that the generator has not received confirmation of delivery, to the director.

(c) For rejected shipments of hazardous waste or container residues contained in non-empty containers that are forwarded to an alternate facility by a designated facility using a new manifest, following the procedures of Subsections R315-264-72(e)(1) through R315-264-72(e)(6) or R315-265-72(e)(1) through R315-265-72(e)(6); the generator shall comply with the requirements of Subsection R315-262-42(a) or R315-262-42(b), as applicable, for the shipment forwarding the material from the designated facility to the alternate facility instead of for the shipment from the generator to the designated facility. For purposes of Subsection R315-262-42(a) or R315-262-42(b) for a shipment forwarding the waste to an alternate facility by a designated facility:

(1) The copy of the manifest received by the generator shall have the handwritten signature of the owner or operator of the alternate facility in place of the signature of the owner or operator of the designated facility; and

(2) The [~~35 or 45 or~~]45 or 60-day timeframes begin the date the waste was accepted by the initial transporter forwarding the hazardous waste shipment from the designated facility to the alternate facility.

(d)(1) Beginning on December 1, 2025, any requirement in Title R315 for a generator to keep a copy of an Exception Report is satisfied by retention of a signed electronic Exception Report in the generator's account on the EPA e-Manifest system, provided that the Exception Report is readily available if requested by the director.

(2) Beginning on December 1, 2025, no generator may be held liable for the inability to produce an electronic Exception Report for inspection under Section R315-262-42 if the generator can demonstrate that the inability to produce the electronic Exception Report is due exclusively to a technical difficulty with the e-Manifest system for which the generator bears no responsibility.

R315-262-83. Transboundary Movements of Hazardous Waste for Recovery or Disposal -- Exports of Hazardous Waste.

(a) General export requirements. Except as provided in Subsections R315-262-83(a)(5) and R315-262-83(a)(6), exporters that have received an AOC from EPA before December 31, 2016 are subject to that approval and the requirements listed in the AOC that existed [~~at the time of that approval~~]when approved until the time that the approval period expires. Any other exports of hazardous waste are prohibited unless:

(1) the exporter complies with the contract requirements in Subsection R315-262-83(f);

(2) the exporter complies with the notification requirements in Subsection R315-262-83(b);

(3) the exporter receives an AOC from EPA documenting consent from the countries of import and transit, and original country of export if exporting previously imported hazardous waste;

(4) the exporter ensures compliance with the movement documents requirements in Subsection R315-262-83(d);

(5) the exporter ensures compliance with the manifest instructions for export shipments in Subsection R315-262-83(c); and

(6) the exporter or a [~~U.S.~~]US authorized agent submits Electronic Export Information (EEI) for each shipment to the Automated Export System (AES) or its successor system, under the International Trade Data System (ITDS) platform, in accordance with 15 CFR 30.4(b), and includes the items listed in Subsections R315-262-83(a)(6)(i) and R315-262-83(a)(6)(ii) in the EEI, along with the other information required under 15 CFR 30.6:

(i) For shipments initiated before the AES filing compliance date, [~~does one of the following~~]complies with either Subsection R315-262-83(a)(6)(i)(A) or R315-262-83(a)(6)(i)(B):

(A) Submits [~~Electronic Export Information (~~]EEI[~~)~~] for each shipment to the [~~Automated Export System (~~]AES[~~)~~] or its successor system, under the [~~International Trade Data System (~~]ITDS[~~)~~] platform, in accordance with 15 CFR 30.4(b), and includes the [~~following~~]items listed in Subsections R315-262-83(a)(6)(i)(A)(I) through R315-262-83(a)(6)(i)(A)(VIII) in the EEI, along with the other information required under 15 CFR 30.6:

(I) EPA license code;

(II) [~~C~~]commodity classification code for each hazardous waste per 15 CFR 30.6(a)(12);

(III) EPA consent number for each hazardous waste;

(IV) [~~C~~]country of ultimate destination code per 15 CFR 30.6(a)(5);

(V) [~~D~~]date of export per 15 CFR 30.6(a)(2);

(VI) hazardous waste manifest tracking number, if required;

(VII) [~~Q~~]quantity of each hazardous waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6(a)(15); or

(VIII) EPA net quantity for each hazardous waste reported in units of kilograms if solid or in units of liters if liquid, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(B) Complies with a paper-based process by:

(I) Attaching paper documentation of consent, for example, a copy of the EPA Acknowledgment of Consent, international movement document, to the manifest, or shipping papers if a manifest is not required, that shall accompany the hazardous waste shipment. For exports by rail or water, bulk shipment, the primary exporter shall provide the transporter with the paper documentation of consent that shall accompany the hazardous waste but need not be attached to the manifest except that for exports by water, bulk shipment, the primary exporter shall attach the paper documentation of consent to the shipping paper.

(II) Providing the transporter with an additional copy of the manifest, and instructing the transporter via mail, email or fax to deliver that copy to the [~~U.S.~~]US Customs official at the point the hazardous waste leaves the United States in accordance with Subsection R315-263-20(g)(4)(ii);

(ii) For shipments initiated on or after the AES filing compliance date, submits [~~Electronic Export Information (~~]EEI[~~)~~] for each shipment to the [~~Automated Export System (~~]AES[~~)~~] or its successor system, under the [~~International Trade Data System (~~]ITDS[~~)~~] platform, in accordance with 15 CFR 30.4(b), and includes the [~~following~~]items listed in Subsections R315-262-83(a)(6)(ii)(A) through R315-262-83(a)(6)(ii)(H) in the EEI, along with the other information required under 15 CFR 30.6:

(A) EPA license code;

(B) [~~C~~]commodity classification code for each hazardous waste per 15 CFR 30.6(a)(12);

(C) EPA consent number for each hazardous waste;

(D) [~~C~~]country of ultimate destination code per 15 CFR 30.6(a)(5);

(E) [~~D~~]date of export per 15 CFR 30.6(a)(2);

(F) hazardous waste manifest tracking number, if required;

(G) [~~Q~~]quantity of each hazardous waste in shipment and units for reported quantity, if required reporting units established by value for the reported commodity classification number are in units of weight or volume per 15 CFR 30.6(a)(15); or

(H) EPA net quantity for each hazardous waste reported in units of kilograms if solid or in units of liters if liquid, if required reporting units established by value for the reported commodity classification number are not in units of weight or volume.

(b) Notifications.

(1) General notifications. At least 60 days before the first shipment of hazardous waste is expected to leave the United States, the exporter shall provide notification in English to EPA of the proposed transboundary movement. Notifications shall be submitted electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The notification may cover up to one year of shipments of one or more hazardous wastes being sent to a recovery or disposal facility, and shall include[~~ the following information~~]:

(i) [~~E~~]exporter name and EPA identification number, site address, telephone, fax numbers, and email address;

(ii) [~~F~~]foreign receiving facility name, site address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations as defined in Section R315-262-81;

(iii) [~~F~~]foreign importer name, if not the owner or operator of the foreign receiving facility, site address, telephone, fax numbers, and email address;

(iv) [~~I~~]intended transporters, their agents, or both; site address, telephone, fax, and email address;

(v) "[~~U.S.~~]US" as the country of export name, "USA01" as the relevant competent authority code, and the intended [~~U.S.~~]US ports of exit;

(vi) [~~T~~]the ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and the ports of entry and exit for each country of transit;

(vii) [~~T~~]the ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and port of entry for the country of import;

(viii) [~~S~~]a statement of whether the notification covers a single shipment or multiple shipments;

(ix) [~~S~~]start and [~~E~~]end [~~D~~]dates requested for transboundary movements;

(x) [~~M~~]means of transport planned to be used;

(xi) [~~D~~]descriptions of each hazardous waste, including whether each hazardous waste is regulated universal waste under Rule R315-273, spent lead-acid batteries being exported for recovery of lead under Section R315-266-80, or industrial ethyl alcohol being exported for reclamation under Subsection R315-261-6(a)(3)(i), estimated total quantity of each waste in either metric tons or cubic meters, the applicable RCRA waste codes for each hazardous waste, the applicable OECD waste code from the lists incorporated by reference in Section R315-260-11, and the United Nations or [~~U.S.~~]US Department of Transportation (DOT) ID number for each waste;

(xii) [~~S~~]specification of the recovery or disposal operations as defined in Section R315-262-81; and

(xiii) [~~C~~]certification or [~~D~~]declaration signed by the exporter that states: "I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally enforceable written contractual obligations have been entered into and that any applicable insurance or other financial guarantee is or shall be in force covering the transboundary movement. Name: Signature: Date:".

(2) Exports to pre-consented recovery facilities in OECD [~~M~~]member countries. If the recovery facility is located in an OECD member country and has been pre-consented by the competent authority of the OECD member country to recover the waste sent by exporters located in other OECD member countries, the notification may cover up to three years of shipments. Notifications proposing export to a pre-consented facility in an OECD member country shall include the information listed in Subsections R315-262-83(b)(1)(i) through R315-262-83(b)(1)(xiii) and additionally state that the facility is pre-consented. Exporters shall submit the notification to EPA using the allowable methods listed in Subsection R315-262-83(b)(1) at least ten days before the first shipment is expected to leave the United States.

(3) Notifications listing interim recycling operations or interim disposal operations. If the foreign receiving facility listed in Subsection R315-262-83(b)(1)(ii) will engage in any of the interim recovery operations R12 or R13 or interim disposal operations D13 through D15, or in the case of transboundary movements with Canada, any of the interim recovery operations R12, R13, or RC3, or interim disposal operations D13 to D14, or D15, the notification submitted according to Subsection R315-262-83(b)(1) shall also include the final foreign recovery or disposal facility name, site address, telephone, fax numbers, email address, technologies used, and which of the applicable recovery or disposal operations R1 through R11 and D1 through D12, or in the case of transboundary movements with Canada, which of the applicable recovery or disposal operations R1 through R11, RC1 to RC2, D1 through D12, and DC1 to DC2 will be used at the final foreign recovery or disposal facility. The recovery and disposal operations in Subsection R315-262-83(b) are defined in Section R315-262-81.

(4) Renotifications. If the exporter wishes to change any of the information specified on the original notification, including increasing the estimate of the total quantity of hazardous waste specified in the original notification or adding transporters, the exporter shall submit a renotification of the changes to EPA using the allowable methods in Subsection R315-262-83(b)(1). Any shipment using the requested changes cannot take place until the countries of import and transit consent to the changes and the exporter receives an EPA AOC letter documenting the countries' consents to the changes.

(5) If the proposed country of import and recovery or disposal operations is not covered under an international agreement between the United States and the country of import, EPA will coordinate with the Department of State to provide the complete notification to country of import and any countries of transit. In any other case, EPA will provide the notification directly to the country of import and any countries of transit. A notification is complete when EPA receives a notification that EPA determines satisfies the requirements of Subsections R315-262-83(b)(1)(i) through R315-262-83(b)(1)(xiii).

(6) If the countries of import and transit consent to the proposed transboundary movements of the hazardous wastes, EPA will forward an EPA AOC letter to the exporter documenting the countries' consents. If any of the countries of import and transit objects to the proposed transboundary movements of the hazardous waste or withdraws an earlier consent, EPA will notify the exporter.

(7) Export of hazardous wastes for recycling or disposal operations that were originally imported into the United States for recycling or disposal operations in a third country is prohibited unless an exporter in the United States complies with the export requirements in Section R315-262-83, including providing notification to EPA in accordance with Subsection R315-262-83(b)(1). In addition to listing the required information in Subsections R315-262-83(b)(1)(i) through R315-262-83(b)(1)(xiii), the exporter shall provide the original consent number issued for the initial import of the wastes in the notification, and receive an AOC from EPA documenting the consent of the competent authorities in new country of import, the original country of export, and any transit countries before re-export.

(8) Upon request by EPA, the exporter shall furnish to EPA any additional information that the country of import requests to respond to a notification.

(c) Hazardous Waste Manifest instructions for export shipments. The exporter shall comply with the manifest requirements of Sections R315-262-20 through R315-262-[~~23~~]25 except that:

(1) [~~I~~]in lieu of the name, site address and EPA ID number of the designated permitted facility, the exporter shall enter the name and site address of the foreign receiving facility[~~-~~];

(2) [~~I~~]in the International Shipments block on the continuation sheet, EPA Form 8700-22A, the exporter shall:[~~-check the export box and enter the U.S. port of exit, city and state, from the United States.~~]

(i) check the export box and enter the US port of exit, city and State, from the United States;

(ii) enter the exporter's EPA ID number, if the exporter is not identified in Item 5 of the manifest, EPA Form 8700-22, for the export shipment; and

(iii) list the waste stream consent number from the AOC for each hazardous waste listed on the manifest, matched to the relevant list number for the hazardous waste from block 9b. If additional space is needed, the exporter should use an additional continuation sheet, EPA Form 8700--22A.

[~~(3) The exporter shall list the consent number from the AOC for each hazardous waste listed on the manifest, matched to the relevant list number for the hazardous waste from block 9b. If additional space is needed, the exporter should use Continuation Sheets, EPA Form 8700--22A.~~]

(3) The exporter may get the manifest from any source so long as the source of the printed form has received approval from the EPA to print the manifest in accordance with Subsection R315-262-21(g)(1).

(4) [~~The exporter may get the manifest from any source that is registered with the U.S. EPA as a supplier of manifests, for example, states, waste handlers, or commercial forms printers.~~]Beginning on December 1, 2025, within 30 days of receiving an export manifest from the final domestic transporter to carry the export shipment to or across the US port of exit, the exporter shall submit the top copy, Page 1, of the signed and dated manifest, whether electronic or paper, and any continuation sheets, whether electronic or paper, to the EPA e-Manifest system. The exporter shall submit the paper manifest and any paper continuation sheets to the EPA e-Manifest system for purposes of data entry and processing by transmitting to the EPA e-Manifest system an image file of Page 1 of the manifest and any continuation sheets, or by transmitting to the EPA e-Manifest system both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheets.

(i) As prescribed in 40 CFR 265.1311, and determined in 40 CFR 265.1312, an exporter who is a user of the electronic manifest system shall be assessed a user fee by the EPA for the submission and processing of each electronic and paper manifest. The EPA shall update the schedule of user fees and publish them to the user community, as provided in 40 CFR 265.1313.

(ii) An exporter subject to user fees under Section R315-262-83 shall make user fee payments in accordance with the requirements of 40 CFR 265.1314, subject to the informal fee dispute resolution process of 40 CFR 265.1316, and subject to the sanctions for delinquent payments under 40 CFR 265.1315.

(iii) Electronic manifest signatures shall meet the criteria described in Section R315-262-25.

(iv) Within 30 days of receiving a paper replacement manifest from the last transporter carrying the shipment to or across the US border for a manifest that was originated electronically, the exporter shall send a signed and dated copy of the paper replacement manifest to the EPA e-Manifest system.

(v) After foreign facilities have certified to the receipt of hazardous wastes by sending a copy of the movement document to the exporter in accordance with the requirements of Subsection R315-262-83(d)(2)(xvii), any post-receipt data corrections may be submitted at any time by any interested person, for example a domestic waste handler, shown on the manifest. If requested by the director, an exporter shall address manifest data corrections within 30 days from the date of the request. Data correction submissions shall be made electronically via the post-receipt data corrections process as described in Subsection R315-265-71(l), which applies to corrections made to either paper or electronic manifests.

(d) Movement document requirements for export shipments.

(1) Exporters shall ensure that a movement document meeting the conditions of Subsection R315-262-83(d)(2) accompanies each transboundary movement of hazardous wastes from the initiation of the shipment until it reaches the foreign receiving facility, including cases when the hazardous waste is stored, sorted by the foreign importer before shipment to the foreign receiving facility, or both, except as provided in Subsections R315-262-83(d)(1)(i) and R315-262-83(d)(1)(ii).

(i) For shipments of hazardous waste within the United States solely by water, bulk shipments only, the exporter shall forward the movement document to the last water, bulk shipment, transporter to handle the hazardous waste in the United States if exported by water.

(ii) For rail shipments of hazardous waste within the United States that start from the company originating the export shipment, the exporter shall forward the movement document to the next non-rail transporter, if any, or the last rail transporter to handle the hazardous waste in the United States if exported by rail.

(2) The movement document shall include the [~~following~~]information required by Subsections R315-262-83(d)(2)(i) through R315-262-83(d)(2)(xv):

(i) The corresponding consent numbers and hazardous waste numbers for the listed hazardous waste from the relevant EPA AOCs and if required to be accompanied by a RCRA Uniform Hazardous Waste Manifest within the United States, the manifest tracking number from block 4;

(ii) The shipment number and the total number of shipments from the EPA AOC or the movement tracking number;

(iii) Exporter name and EPA identification number, site address, telephone, fax numbers, and email address;

(iv) Foreign receiving facility name, site address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations as defined in Section R315-262-81;

(v) Foreign importer name, if not the owner or operator of the foreign receiving facility, site address, telephone, fax numbers, and email address;

(vi) Descriptions of each hazardous waste, quantity of each hazardous waste in the shipment, applicable RCRA hazardous waste codes for each hazardous waste, applicable OECD waste code for each hazardous waste from the lists incorporated by reference in Section R315-260-11, and the United Nations or [~~U.S. Department of Transportation (~~]DOT[~~)~~] ID number for each hazardous waste;

(vii) Date movement began;

(viii) Name, if not exporter, site address, telephone, fax numbers, and email of company originating the shipment;

(ix) Company name, EPA ID number, site address, telephone, fax, and email address of each transporter;

(x) Identification, for example, license, registered name or registration number, of means of transport, including types of packaging;

(xi) Any special precautions to be taken by transporters;

(xii) Certification or declaration signed and dated by the exporter that the information in the movement document is complete and correct;

(xiii) Appropriate signatures for each custody transfer, for example, transporter, importer, and owner or operator of the foreign receiving facility;

(xiv) Each [~~U.S.~~]US person that has physical custody of the hazardous waste from the time the movement begins until it arrives at the foreign receiving facility shall sign the movement document, for example, transporter, foreign importer, and owner or operator of the foreign receiving facility; and

(xv) As part of the contract requirements per Subsection R315-262-83(f), the exporter shall require that the foreign receiving facility send a copy of the signed movement document to confirm receipt within three working days of shipment delivery to the exporter, to the competent authorities of the countries of import and transit that control the shipment as an import and transit of hazardous waste respectively.[~~, and f~~] For shipments occurring on or after the electronic import-export reporting compliance date, the exporter shall:[~~ additionally require that the foreign receiving facility send a copy to EPA at the same time using the allowable methods listed in Subsection R315-262-83(b)(1).~~]

(A) initiate the movement document using the allowable methods listed in Subsection R315-262-83(b)(1); and

(B) close out the movement document within three working days of receiving a copy of the signed movement document sent from the foreign receiving facility to confirm receipt using the allowable methods listed in Subsection R315-262-83(b)(1);

(xvi) As part of the contract requirements of Subsection R315-262-83(f), the exporter shall require that the foreign receiving facility send a copy of the confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the exporter and to the competent authority of the country of import. If the movement includes shipment to a foreign interim receiving facility, the exporter shall additionally require that the interim receiving facility promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC1, or one of disposal operations D1 through D12, DC1 or DC2 as defined in Section R315-262-81 to the competent authority of the country of import and to the exporter. For shipments occurring on or after the electronic import-export reporting compliance date, the exporter shall submit each confirmation of recovery or disposal to the EPA within three working days of receiving the confirmation of recovery or disposal from the foreign receiving facility using the allowable methods listed in Subsection R315-262-83(b)(1); and

(xvii) For shipments sent to a country that the EPA has established an electronic exchange of movement document tracking data, foreign receiving facility transmittal to the exporter of the confirmation of receipt and the confirmation of recovery or disposal may be sent via the electronic exchange.

(e) Duty to return or re-export hazardous wastes. If a transboundary movement of hazardous wastes cannot be finished in accordance with the terms of the contract or the consents and alternative arrangements cannot be made to recover or dispose of the waste in an environmentally sound manner in the country of import, the exporter shall ensure that the hazardous waste is returned to the United States or re-exported to a third country. If the waste shall be returned, the exporter shall provide for the return of the hazardous waste shipment within 90 days from the time the country of import informs EPA of the need to return the waste or another period as the concerned countries agree. In each case, the exporter shall submit an [~~e~~]Exception [~~r~~]Report to EPA in accordance with Subsection R315-262-83(h).

(f) Export contract requirements.

(1) Exports of hazardous waste are prohibited unless they occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements, if the movement occurs between parties controlled by the same corporate or legal entity. The contracts or equivalent arrangements shall be executed by the exporter, foreign importer, if different from the foreign receiving facility, and the owner or operator of the foreign receiving facility, and shall specify responsibilities for each. Contracts or equivalent arrangements are valid for the purposes of Section R315-262-83 only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangements.

(2) Contracts or equivalent arrangements shall specify the name and EPA ID number, if available, of Subsections R315-262-83(f)(2)(i) through R315-262-83(f)(2)(iv):

(i) The company from where each export shipment of hazardous waste is initiated;

(ii) Each person who will have physical custody of the hazardous wastes;

(iii) Each person who will have legal control of the hazardous wastes; and

(iv) The foreign receiving facility.

(3) Contracts or equivalent arrangements shall specify party to the contract that will assume responsibility for alternate management of the hazardous wastes if their disposition cannot be carried out as described in the notification of intent to export. In these cases, contracts shall specify that:

(i) the transporter or foreign receiving facility having actual possession or physical control over the hazardous wastes will immediately inform the exporter, EPA, and either the competent authority of the country of transit or the competent authority of the country of import of the need to make alternate management arrangements; and

(ii) the person specified in the contract will assume responsibility for the adequate management of the hazardous wastes in compliance with applicable laws and regulations including, if necessary, arranging the return of hazardous wastes and, as the case may be, shall provide the notification for re-export to the competent authority in the country of import and include the equivalent of the information required in Subsection R315-262-83(b)(1), the original consent number issued for the initial export of the hazardous wastes in the notification, and get consent from EPA and the competent authorities in the new country of import and any transit countries before re-export.

(iii) Transmittals made by the transporter or foreign receiving facility under Subsection R315-262-83(f)(3)(i) being sent to the exporter or the EPA from a country that the EPA has established an electronic exchange of movement document tracking data may be sent via the electronic exchange.

(4) Contracts shall specify that the foreign receiving facility send a copy of the signed movement document to confirm receipt within three working days of shipment delivery to the exporter and to the competent authorities of the countries of import and transit that control the shipment as an import and transit of the hazardous waste respectively. For shipments sent to a country that the EPA has established an electronic exchange of movement document tracking data, foreign receiving facility transmittal to the exporter of the confirmation of receipt may be sent via the electronic exchange.[~~. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts shall additionally specify that the foreign receiving facility send a copy to EPA at the same time using the allowable methods listed in Subsection R315-262-83(b)(1) on or after that date.~~]

(5) Contracts shall specify that the foreign receiving facility shall send a copy of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the exporter and to the competent authority of the country of import that controls the shipment as an import of hazardous waste. For shipments sent to a country that the EPA has established an electronic exchange of movement document tracking data, foreign receiving facility transmittal to the exporter of the confirmation of recovery or disposal may be sent via the electronic exchange.[~~. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts shall additionally specify that the foreign receiving facility send a copy to EPA at the same time using the allowable methods listed in Subsection R315-262-83(b)(1) on or after that date.~~]

(6) Contracts shall specify that the foreign importer or the foreign receiving facility that performed interim recycling operations R12, R13, or RC3, or interim disposal operations D13 through D15, recovery and disposal operations defined in Section R315-262-81, as appropriate, will:

(i) provide the notification required in Subsection R315-262-83(f)(3)(ii) before any re-export of the hazardous wastes to a final foreign recovery or disposal facility in a third country; and

(ii) promptly send copies of the confirmation of recovery or disposal that it receives from the final foreign recovery or disposal facility within one year of shipment delivery to the final foreign recovery or disposal facility that performed one of recovery operations R1 through R11, or RC1, or one of disposal operations D1 through D12, DC1 or DC2 to the competent authority of the country of import that controls the shipment as an import of hazardous waste and to the exporter. For shipments sent to a country that the EPA has established an electronic exchange of movement document tracking data, foreign receiving facility transmittal to the exporter of the confirmation of recovery or disposal may be sent via the electronic exchange.[~~. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts shall additionally specify that the foreign facility send copies to EPA at the same time using the allowable method listed in Subsection R315-262-83(b)(1) on or after that date.~~]

(7) Contracts or equivalent arrangements shall include provisions for financial guarantees, if required by the competent authorities of the country of import and any countries of transit, in accordance with applicable national or international law requirements.

(i) Financial guarantees so required are intended to provide for alternate recycling, disposal or other means of sound management of the wastes if arrangements for the shipment and the recovery operations cannot be carried out as foreseen. The United States does not require these financial guarantees at this time; however, several OECD [~~M~~]member countries and other foreign countries do. It is the responsibility of the exporter to ascertain and comply with the requirements and persons or facilities located in those OECD [~~M~~]member countries or other foreign countries may refuse to enter into the necessary contracts absent specific references or certifications to financial guarantees.

(8) Contracts or equivalent arrangements shall contain provisions requiring each contracting party to comply with the applicable requirements of Sections R315-262-80 through R315-262-84.

(9) Upon request by EPA, [~~U.S.~~]US exporters, importers, or recovery facilities shall submit to EPA copies of contracts, chain of contracts, or equivalent arrangements, if the movement occurs between parties controlled by the same corporate or legal entity.

(g) Annual reports. The exporter shall file an annual report with EPA no later than March 1 of each year summarizing the types, quantities, frequency, and ultimate destination of any hazardous waste exported during the previous calendar year. [~~Before one year after the AES filing compliance date, the exporter shall mail or hand-deliver annual reports to EPA using one of the addresses specified in Subsection R315-262-82(e), or submit to EPA using the allowable methods specified in Subsection R315-262-83(b)(1) if the exporter has electronically filed EPA information in AES, or its successor system, per Subsection R315-262-83(a)(6)(i)(A) for each shipment made the previous calendar year. Subsequently, t~~]The exporter shall submit annual reports to EPA using the allowable methods specified in Subsection R315-262-83(b)(1). The annual report shall include[~~ each of the following Subsections R315-262-83(g)(1) through R315-262-83(g)(6) specified as follows~~]:

(1) [~~T~~]the EPA identification number, name, and mailing and site address of the exporter filing the report;

(2) [~~T~~]the calendar year covered by the report;

(3) [~~T~~]the name and site address of each foreign receiving facility;

(4) [~~B~~]by foreign receiving facility, for each hazardous waste exported:

(i) [~~A~~]a description of the hazardous waste;

(ii) [~~T~~]the applicable EPA hazardous waste codes, from Sections R315-261-20 through R315-261-24 and R315-261-30 through R315-261-35, for each waste;

(iii) [~~T~~]the applicable waste code from the appropriate OECD waste list incorporated by reference in Section R315-260-11;

(iv) [~~T~~]the applicable DOT ID number;

(v) [~~T~~]the name and [~~U.S.~~]US EPA ID number, if applicable, for each transporter used over the calendar year covered by the report; and

(vi) [~~T~~]the consent numbers the hazardous waste was shipped under, and for each consent number, the total amount of the hazardous waste and the number of shipments exported during the calendar year covered by the report;

(5) [~~I~~]in even numbered years, for each hazardous waste exported, except for hazardous waste produced by exporters of greater than 100kg but less than 1,000kg in a calendar month, and except for hazardous waste that the information was already provided pursuant to Section R315-262-41:

(i) [~~A~~]a description of the efforts undertaken during the year to reduce the volume and toxicity of the waste generated; and

(ii) [~~A~~]a description of the changes in volume and toxicity of the waste actually achieved during the year in comparison to previous years to the extent this information is available for years earlier than 1984; and

(6) [~~A~~]a certification signed by the exporter that states: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment."

(h) Exception reports.

(1) The exporter shall file an [~~e~~]Exception [~~r~~]Report in lieu of the requirements of Section R315-262-42, if applicable, with EPA if any of the [~~following~~]items in Subsections R315-262-83(h)(1)(i) through R315-262-83(h)(1)(iii) occurs:

(i) The exporter has not received a copy of the hazardous waste manifest, if applicable, signed by the transporter identifying the point of departure of the hazardous waste from the United States, within 45 days from the date it was accepted by the initial transporter, in this case the exporter shall file the [~~e~~]Exception [~~r~~]Report within the next 30 days;

(ii) The exporter has not received a written confirmation of receipt from the foreign receiving facility in accordance with Subsection R315-262-83(d) within 90 days from the date the waste was accepted by the initial transporter in this case the exporter shall file the [~~e~~]Exception [~~r~~]Report within the next 30 days; or

(iii) The foreign receiving facility notifies the exporter, or the country of import notifies EPA, of the need to return the shipment to the [~~U.S.~~]US or arrange alternate management, in this case the exporter shall file the [~~e~~]Exception [~~r~~]Report within 30 days of notification, or one day before the date the return shipment begins, whichever is sooner.

(2) Before the electronic import-export reporting compliance date, [~~e~~]Exception [~~r~~]Reports shall be mailed or hand delivered to EPA using the addresses listed in Subsection R315-262-82(e). Subsequently, [~~e~~]Exception [~~r~~]Reports shall be submitted to EPA using the allowable methods listed in Subsection R315-262-83(b)(1).

(i) Recordkeeping.

(1) The exporter shall keep the [~~following~~]records as described in Subsections R315-262-83(i)(1)(i) through R315-262-83(i)(1)(vi) and provide them to EPA or Utah personnel upon request:

(i) [~~A~~]a copy of each notification of intent to export and each EPA AOC for a period of at least three years from the date the hazardous waste was accepted by the initial transporter;

(ii) [~~A~~]a copy of each annual report for a period of at least three years from the due date of the report;

(iii) [~~A~~]a copy of any [~~e~~]Exception [~~r~~]Reports and a copy of each confirmation of receipt, for example, movement document, sent by the foreign receiving facility to the exporter for at least three years from the date the hazardous waste was accepted by the initial transporter; and

(iv) [~~A~~]a copy of each confirmation of recovery or disposal sent by the foreign receiving facility to the exporter for at least three years from the date that the foreign receiving facility finished interim or final processing of the hazardous waste shipment.

(v) A copy of each contract or equivalent arrangement established per Subsection R315-262-83(f) for at least three years from the expiration date of the contract or equivalent arrangement.

(vi) A copy of each manifest sent by the last transporter in the United States per Subsection R315-263-20(g).

(2) Exporters may satisfy these recordkeeping requirements by keeping electronically submitted documents in the exporter's account on [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, if copies are readily available for viewing and production if requested by any EPA or Utah inspector. No exporter may be held liable for the inability to produce the documents for inspection under Section R315-262-83 if the exporter can demonstrate that the inability to produce the document is due exclusively to technical difficulty with [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system that is not the responsibility of the exporter.

(3) The periods of retention referred to in Section R315-262-83 are extended automatically during any unresolved enforcement action regarding the regulated activity or as requested by the Administrator.

R315-262-84. Transboundary Movements of Hazardous Waste for Recovery or Disposal -- Imports of Hazardous Waste.

(a) General import requirements.

(1) With the exception of Subsection R315-262-84(a)(5), importers of shipments covered under a consent from EPA to the country of export issued before December 31, 2016 are subject to that approval and the requirements that existed at the time of that approval until the time that the approval period expires. Otherwise, any other person who imports hazardous waste from a foreign country into the United States shall comply with the requirements of Rule R315-262 and the special requirements of Sections R315-262-80 through R315-262-84.

(2) If the country of export does not require the foreign exporter to submit a notification and get consent to the export before shipment, the importer shall submit a notification to EPA in accordance with Subsection R315-262-84(b).

(3) The importer shall comply with the contract requirements in Subsection R315-262-84(f).

(4) The importer shall ensure compliance with the movement documents requirements in Subsection R315-262-84(d).

(5) The importer shall ensure compliance with the manifest instructions for import shipments in Subsection R315-262-84(c).

(b) Notifications. If the competent authority of the country of export does not regulate the waste as hazardous waste and, thus, does not require the foreign exporter to submit to it a notification proposing export and get consent from EPA and the competent authorities for the countries of transit, but EPA does regulate the waste as hazardous waste:

(1) The importer shall provide notification in English to EPA of the proposed transboundary movement of hazardous waste at least 60 days before the first shipment is expected to depart the country of export. Notifications submitted before the electronic import-export reporting compliance date shall be mailed or hand delivered to EPA at the addresses specified in Subsection R315-262-82(e). Notifications submitted on or after the electronic import-export reporting compliance date shall be submitted electronically using [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~),~~] or its successor system. The notification may cover up to one year of shipments of one or more hazardous wastes being sent from the same foreign exporter, and shall include[~~ the following information~~]:

(i) [~~F~~]foreign exporter name, site address, telephone, fax numbers, and email address;

(ii) [~~R~~]receiving facility name, EPA ID number, site address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations as defined in Section R315-262-81;

(iii) [~~I~~]importer name, if not the owner or operator of the receiving facility, EPA ID number, site address, telephone, fax numbers, and email address;

(iv) [~~I~~]intended transporters, their agents, or both; site address, telephone, fax, and email address;

(v) "[~~U.S.~~]US" as the country of import, "USA01" as the relevant competent authority code, and the intended [~~U.S.~~]US ports of entry;

(vi) [~~T~~]the ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and the ports of entry and exit for each country of transit;

(vii) [~~T~~]the ISO standard 3166 country name 2-digit code, OECD/Basel competent authority code, and port of exit for the country of export;

(viii) [~~S~~]a statement of whether the notification covers a single shipment or multiple shipments;

(ix) [~~S~~]start and [~~E~~]end [~~D~~]dates requested for transboundary movements;

(x) [~~M~~]means of transport planned to be used;

(xi) [~~D~~]descriptions of each hazardous waste, including whether each hazardous waste is regulated universal waste under Rule R315-273, spent lead-acid batteries being exported for recovery of lead under Section R315-266-80, or industrial ethyl alcohol being exported for reclamation under Subsection R315-261-6(a)(3)(i), estimated total quantity of each hazardous waste, the applicable RCRA hazardous waste codes for each hazardous waste, the applicable OECD waste code from the lists incorporated by reference in Section R315-260-11, and the United Nations or [~~U.S. Department of Transportation (~~]DOT[~~)~~] ID number for each hazardous waste;

(xii) [~~S~~]specification of the recovery or disposal operations as defined in Section R315-262-81; and

(xiii) [~~C~~]a certification or [~~D~~]declaration signed by the importer that states: "I certify that the above information is complete and correct to the best of my knowledge. I also certify that legally enforceable written contractual obligations have been entered into and that any applicable insurance or other financial guarantee is or shall be in force covering the transboundary movement. Name: Signature: Date:".

(A) The United States does not currently require financial assurance for these waste shipments.

(2) Notifications listing interim recycling operations or interim disposal operations. If the receiving facility listed in Subsection R315-262-84(b)(1)(ii) will engage in any of the interim recovery operations R12, R13, or RC3 or interim disposal operations D13 through D15, the notification submitted according to Subsection R315-262-84(b)(1) shall also include the final recovery or disposal facility name, site address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations R1 through R11, RC1, and D1 through D12, that will be used at the final recovery or disposal facility. The recovery and disposal operations in Subsection R315-262-84(b)(2) are defined in Section R315-262-81.

(3) Renotifications. If the foreign exporter wishes to change any of the conditions specified on the original notification, including increasing the estimate of the total quantity of hazardous waste specified in the original notification or adding transporters, the importer shall submit a renotification of the changes to EPA using the allowable methods in Subsection R315-262-84(b)(1). Any shipment using the requested changes cannot take place until EPA and the countries of transit consent to the changes and the importer receives an EPA AOC letter documenting the consents to the changes.

(4) A notification is complete when EPA determines the notification satisfies the requirements of Subsections R315-262-84(b)(1)(i) through R315-262-84(b)(1)(xiii).

(5) If EPA and the countries of transit consent to the proposed transboundary movements of the hazardous wastes, EPA will forward an EPA AOC letter to the importer documenting the countries' consents and EPA's consent. If any of the countries of transit or EPA objects to the proposed transboundary movements of the hazardous waste or withdraws an earlier consent, EPA will notify the importer.

(6) Export of hazardous wastes originally imported into the United States. Export of hazardous wastes that were originally imported into the United States for recycling or disposal operations is prohibited unless an exporter in the United States complies with the export requirements in Subsection R315-262-83(b)(7).

(c) Manifest instructions for import shipments.

(1) When importing hazardous waste, the importer shall meet the requirements of Section R315-262-20 for the manifest except that:

(i) In place of the generator's name, mailing and site addresses and EPA identification number, the name and site address of the foreign generator and the importer's name, mailing address and EPA identification number shall be used.

(ii) In place of the generator's signature on the certification statement, the importer or the importer's agent shall sign and date the certification and get the signature of the initial transporter.

(2) The importer may get the manifest form from any source that is registered with the EPA as a supplier of manifests, for example, states, waste handlers, or commercial forms printers.

(3) In the International Shipments block on the continuation sheet, EPA Form 8700-22A, the importer shall check the import box and enter the point of entry, city and state, into the United States.

(4) [~~The importer shall provide the transporter with an additional copy of the manifest to be submitted by the receiving facility to U.S. EPA in accordance with Subsection R315-264-71(a)(3) and Subsection R315-265-71(a)(3).~~]In lieu of the requirements of Subsection R315-262-20(d), where a shipment cannot be delivered for any reason to the receiving facility, the importer shall instruct the transporter in writing via fax, email or mail to:

(i) Return the hazardous waste to the foreign exporter or designate another facility within the United States; and

(ii) Revise the manifest in accordance with the importer's instructions.

(5) In lieu of the requirements of Subsection R315-262-20(d), if a shipment cannot be delivered for any reason to the receiving facility, the importer shall instruct the transporter in writing via fax, email or mail to:

(i) return the hazardous waste to the foreign exporter or designate another facility within the United States; and

(ii) revise the manifest in accordance with the importer's instructions.

(d) Movement document requirements for import shipments.

(1) The importer shall ensure that a movement document meeting the conditions of Subsection R315-262-84(d)(2) accompanies each transboundary movement of hazardous wastes from the initiation of the shipment in the country of export until it reaches the receiving facility,

including cases where the hazardous waste is stored, sorted by the importer before shipment to the receiving facility, or both, except as provided in Subsections R315-262-84(d)(1)(i) and R315-262-84(d)(1)(ii).

(i) For shipments of hazardous waste within the United States by water, bulk shipments only, the importer shall forward the movement document to the last water, bulk shipment, transporter to handle the hazardous waste in the United States if imported by water.

(ii) For rail shipments of hazardous waste within the United States that start from the company originating the export shipment, the importer shall forward the movement document to the next non-rail transporter, if any, or the last rail transporter to handle the hazardous waste in the United States if imported by rail.

(2) The movement document shall include the [~~following~~]the information required by Subsections R315-262-84(d)(2)(i) through R315-262-84(d)(2)(xv):

(i) The corresponding AOC numbers and waste numbers for the listed waste and if required to be accompanied by a RCRA uniform hazardous waste manifest within the United States, the manifest tracking number from block 4;

(ii) The shipment number and the total number of shipments under the AOC number or the movement tracking number;

(iii) Foreign exporter name, site address, telephone, fax numbers, and email address;

(iv) Receiving facility name, EPA ID number, site address, telephone, fax numbers, email address, technologies used, and the applicable recovery or disposal operations as defined in Section R315-262-81;

(v) Importer name, if not the owner or operator of the receiving facility, EPA ID number, site address, telephone, fax numbers, and email address;

(vi) Descriptions of each hazardous waste, quantity of each hazardous waste in the shipment, applicable RCRA hazardous waste codes for each hazardous waste, the applicable OECD waste code for each hazardous waste from the lists incorporated by reference in Section R315-260-11, and the United Nations or [~~U.S. Department of Transportation (~~]DOT[~~)~~] ID number for each hazardous waste;

(vii) Date movement began;

(viii) Name, if not the foreign exporter, site address, telephone, fax numbers, and email of the foreign company originating the shipment;

(ix) Company name, EPA ID number, site address, telephone, fax numbers, and email address of each transporter;

(x) Identification, license, registered name or registration number, of means of transport, including types of packaging;

(xi) Any special precautions to be taken by transporters;

(xii) Certification or declaration signed and dated by the foreign exporter that the information in the movement document is complete and correct;

(xiii) Appropriate signatures for each custody transfer, for example, transporter, importer, and owner or operator of the receiving facility;

(xiv) Each person that has physical custody of the waste from the time the movement begins until it arrives at the receiving facility shall sign the movement document, for example, transporter, importer, and owner or operator of the receiving facility; and

(xv) The receiving facility shall send a copy of the signed movement document to confirm receipt within three working days of shipment delivery to the foreign exporter[~~,~~] and to the competent authorities of the countries of export and transit that control the shipment as an export and transit of hazardous waste respectively. [~~, and f~~]For shipments received on or after the electronic import-export reporting compliance date, the receiving facility shall close out the movement document to confirm receipt within three working days of shipment delivery using the EPA's WIETS or its successor system. For shipments sent from a country that the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use WIETS or its successor system to send movement document confirmation data back through the electronic exchange to the foreign exporter and the country of export.[~~, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system.~~]

(e) Duty to return or export hazardous wastes. If a transboundary movement of hazardous wastes cannot be finished in accordance with the terms of the contract or the consents, Subsection R315-262-84(f)(4) applies. If alternative arrangements cannot be made to recover the hazardous waste in an environmentally sound manner in the United States, the hazardous waste shall be returned to the country of export or exported to a third country. Subsection R315-262-84(b)(6) applies to any hazardous waste shipments to be exported to a third country. If the return shipment will cross any transit country, the return shipment may only occur after EPA provides notification to and gets consent from the competent authority of the country of transit, and provides a copy of that consent to the importer.

(f) Import contract requirements.

(1) Imports of hazardous waste shall occur under the terms of a valid written contract, chain of contracts, or equivalent arrangements, if the movement occurs between parties controlled by the same corporate or legal entity. These contracts or equivalent arrangements shall be executed by the foreign exporter, importer, and the owner or operator of the receiving facility, and shall specify responsibilities for each. Contracts or equivalent arrangements are valid for the purposes of Section R315-262-84 only if persons assuming obligations under the contracts or equivalent arrangements have appropriate legal status to conduct the operations specified in the contract or equivalent arrangements.

(2) Contracts or equivalent arrangements shall specify the name and EPA ID number, if available, of Subsections R315-262-84(f)(2)(i) through R315-262-84(f)(2)(iv):

(i) The foreign company from where each import shipment of hazardous waste is initiated;

(ii) Each person who will have physical custody of the hazardous wastes;

(iii) Each person who will have legal control of the hazardous wastes; and

(iv) The receiving facility.

(3) Contracts or equivalent arrangements shall specify the use of a movement document in accordance with Subsection R315-262-84(d).

(4) Contracts or equivalent arrangements shall specify the party to the contract that will assume responsibility for alternate management of the hazardous wastes if their disposition cannot be carried out as described in the notification of intent to export submitted by either the foreign exporter or the importer. In these cases, contracts shall specify that:

(i) the transporter or receiving facility having actual possession or physical control over the hazardous wastes will immediately inform the foreign exporter and importer, and the competent authority where the shipment is located of the need to arrange alternate management or return; and

(ii) the person specified in the contract will assume responsibility for the adequate management of the hazardous wastes in compliance with applicable laws and regulations including, if necessary, arranging the return of the hazardous wastes and, as the case may be, shall provide the notification for re-export required in Subsection R315-262-83(b)(7).

(iii) Transmittals made by the transporter or receiving facility under Subsection R315-262-84(f)(4)(i) being sent to a competent authority or foreign exporter in a country that the EPA has established an electronic exchange of movement document tracking data may be sent via the electronic exchange.

(5) Contracts shall specify that the importer or the receiving facility that performed interim recycling operations R12, R13, or RC3, or interim disposal operations D13 through D15, as appropriate, will provide the notification required in Subsection R315-262-83(b)(7) before the re-export of hazardous wastes. The recovery and disposal operations in Subsection R315-262-84(f)(5) are defined in Section R315-262-81.

(6) Contracts or equivalent arrangements shall include provisions for financial guarantees, if required by the competent authorities of any countries concerned, in accordance with applicable national or international law requirements.

(i) Financial guarantees so required are intended to provide for alternate recycling, disposal or other means of sound management of the wastes if arrangements for the shipment and the recovery operations cannot be carried out as foreseen. The United States does not require these financial guarantees at this time; however, several OECD [~~M~~]member countries or other foreign countries do. It is the responsibility of the importer to ascertain and comply with the requirements and persons or facilities located in those countries may refuse to enter into the necessary contracts absent specific references or certifications to financial guarantees.

(7) Contracts or equivalent arrangements shall contain provisions requiring each contracting party to comply with the applicable requirements of Sections R315-262-80 through R315-262-84.

(8) Upon request by EPA, importers or disposal or recovery facilities shall submit to EPA copies of contracts, chain of contracts, or equivalent arrangements, if the movement occurs between parties controlled by the same corporate or legal entity.

(g) Confirmation of recovery or disposal. The receiving facility shall[~~- do the following~~]:

(1) Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and for shipments recycled or disposed of on or after the electronic import-export reporting compliance date, to EPA electronically using [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~),~~] or its successor system. For shipments sent from a country that the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use WIETS or its successor system to send confirmation of recovery or disposal data back through the electronic exchange to the foreign exporter and the country of export.

(2) If the receiving facility performed any of recovery operations R12, R13, or RC3, or disposal operations D13 through D15, the receiving facility shall promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC1 to RC2, or one of disposal operations D1 through D12, or DC1 to DC2, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and for confirmations received on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system. The recovery and disposal operations in Subsection R315-262-84(g)(2) are defined in Section R315-262-81. For shipments sent from a country that the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use WIETS or its successor system to send confirmation of recovery or disposal data back through the electronic exchange to the country of export.

(h) Recordkeeping.

(1) The importer shall keep the [~~following~~]records required by Subsections R315-262-84(h)(1)(i) and R315-262-84(h)(1)(ii) and provide them to EPA or [~~authorized state~~]Utah personnel upon request:

(i) [~~A~~]a copy of each notification that the importer sends to EPA under Subsection R315-262-84(b)(1) and each EPA AOC it receives in response for a period of at least three years from the date the hazardous waste was accepted by the initial foreign transporter; and

(ii) [~~A~~]a copy of each contract or equivalent arrangement established per Subsection R315-262-84(f) for at least three years from the expiration date of the contract or equivalent arrangement.

(2) The receiving facility shall keep the [~~following~~]records required by Subsections R315-262-84(h)(2)(i) through R315-262-84(h)(2)(iv):

(i) [~~A~~]a copy of each confirmation of receipt, for example, movement document, that the receiving facility sends to the foreign exporter for at least three years from the date it received the hazardous waste;

(ii) [~~A~~]a copy of each confirmation of recovery or disposal that the receiving facility sends to the foreign exporter for at least three years from the date that it finished processing the waste shipment;

(iii) [~~F~~]for the receiving facility that performed any of recovery operations R12, R13, or RC3, or disposal operations D13 through D15, recovery and disposal operations defined in Section R315-262-81, a copy of each confirmation of recovery or disposal that the final recovery or disposal facility sent to it for at least three years from the date that the final recovery or disposal facility finished processing the waste shipment; and

(iv) [~~A~~]a copy of each contract or equivalent arrangement established per Subsection R315-262-84(f) for at least three years from the expiration date of the contract or equivalent arrangement.

(3) Importers and receiving facilities may satisfy these recordkeeping requirements by keeping electronically submitted documents in the importer's or receiving facility's account on [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~),~~] or its successor system[~~,~~] if copies are readily available for viewing and production if requested by any EPA or authorized state inspector. No importer or receiving facility may be held liable for the inability to produce the documents for inspection under Subsection R315-262-84(h) if the importer or receiving facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with [~~EPA's Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system that is not the responsibility of the importer or receiving facility.

(4) The periods of retention referred to in Section R315-262-84 are extended automatically during any unresolved enforcement action regarding the regulated activity or as requested by the director.

KEY: hazardous waste, generators
Date of Last Change: [~~January 13,~~] 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-263**	**Filing ID: 57495**

Agency Information

1. Title catchline:	Environmental Quality, Waste Management and Radiation Control, Waste Management	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, UT 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:

R315-263. Standards Applicable to Transporters of Hazardous Waste and Standards Applicable to Emergency Control of Spills for Any Hazardous Waste Handlers

4. Purpose of the new rule or reason for the change:

In February of 1997, the EPA finalized a rulemaking known as the Military Munitions Rule. Authorized states were not required to adopt this rule because it was considered less stringent than existing regulations. At that time, Utah adopted a few of the rules.

In July of 2023, comments were received from the EPA that Utah should adopt more of the regulations promulgated in the Military Munitions Rule because Utah had begun to regulate military facilities in ways that appeared to be consistent with these regulations. Utah then conducted a review of the proposed regulations in the Military Munitions Rule and it was determined that some, but not all, of the proposed rules should be adopted resulting in an amendment to Rule R315-263.

In July of 2024, the EPA finalized rulemaking that integrates e-Manifest with hazardous waste imports and exports and other manifest related reports, PCB manifest amendments, and technical corrections. This rulemaking amended federal regulations found in 40 CFR 263.

As an authorized state, Utah is required to maintain a program that is equivalent to the federal program and therefore, must amend Rule R315-263 to conform with the federal regulations.

5. Summary of the new rule or change:

Language is added at Subsection R315-263-10(f) to state that Section R315-266-203 identifies how the requirements of Rule R315-263 apply to military munitions classified as solid waste.

Subsection R315-263-20(a)(2) is amended to remove a requirement that is outdated.

Subsection R315-263-20(a)(9) is amended to update the requirements for post-receipt manifest data corrections.

Subsection R315-263-20(c) is amended to remove outdated requirements.

Subsection R315-263-20(g) is amended to update manifest requirements for transporters who transport hazardous waste out of the United States.

Additionally, the Division of Waste Management and Radiation Control, Waste Management (Division) is correcting typographical and formatting errors in Rule R315-263.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

It is not anticipated that this rulemaking will result in any cost or savings to the state budget because the state does not manage military munitions and is not an importer or exporter of hazardous waste.

Additionally, the Division does not oversee the import or export of hazardous waste, this is handled by the EPA.

B. Local governments:

It is not anticipated that this rulemaking will result in any cost or savings to local governments because there are no local governments in Utah that manage military munitions or import or export hazardous waste.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

It is not anticipated that the rulemaking regarding military munitions or import and export of hazardous waste will result in any cost or savings to small businesses that must comply with these rules because there are no small businesses in Utah engaged in these activities.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

There are three non-small businesses in Utah that are importers of hazardous waste. It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

It is not anticipated that the rulemaking regarding military munitions or import and export of hazardous waste will result in any cost or savings to persons other than small businesses, non-small businesses, state or local governments that must comply with these rules because there are no persons other than small businesses, non-small businesses, state or local governments in Utah engaged in these activities.

F. Compliance costs for affected persons:

It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table					
Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$3,744	$3,744	$3,744	$3,744	$3,744
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$3,744**	**$3,744**	**$3,744**	**$3,744**	**$3,744**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**
H. Department head comments on fiscal impact and approval of regulatory impact analysis:					
The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.					

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:		
Section 19-6-105	Section 19-6-106	

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.	
A. Comments will be accepted until:	10/31/2025

10. This rule change MAY become effective on:	11/17/2025
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	09/12/2025

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-263. Standards Applicable to Transporters of Hazardous Waste and Standards Applicable to Emergency Control of Spills for Any Hazardous Waste Handlers.
R315-263-10. Scope.

(a) Sections R315-263-11, R315-263-12, R315-263-20, R315-263-21, R315-263-22, R315-263-25, and R315-263-34 establish standards [~~which~~]that apply to persons transporting hazardous waste within Utah if the transportation requires a manifest under Rule R315-262.

(b) Sections R315-263-11, R315-263-12, R315-263-20, R315-263-21, R315-263-22, R315-263-25, and R315-263-34 do not apply to on-site transportation of hazardous waste by generators or by owners or operators of permitted hazardous waste management facilities.

(c) A transporter of hazardous waste shall also comply with Rule R315-262 if the transporter[~~he~~]:

(1) Transports hazardous waste into Utah; or

(2) Mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container.

(d) A transporter of hazardous waste that is being imported from or exported to any other country for purposes of recovery or disposal is subject to Sections R315-263-10 through R315-263-12 and to [~~all~~]any other relevant requirements of Sections R315-262-80 through R315-262-84, including[~~, but not limited to,~~] Subsections R315-262-83(d) and R315-262-84(d) for movement documents.

(e) Reserved

(f) [~~Reserved~~]Section R315-266-203 identifies how the requirements of Rule R315-263 apply to military munitions classified as solid waste under Section R315-266-202.

(g) Sections R315-263-30, R315-263-31, R315-263-32, and R315-263-33 apply to [~~all~~]handlers of hazardous waste or material that [~~when~~]if spilled may become a hazardous waste.

R315-263-20. The Manifest System.

(a)(1) Manifest requirement. A transporter may not accept hazardous waste from a generator unless the transporter is also provided with a manifest form; EPA Form 8700-22, and if necessary, EPA Form 8700-22A; signed in accordance with the requirement of Section R315-262-23, or is provided with an electronic manifest that is gotten, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and signed with a valid and enforceable electronic signature as described in 40 CFR 262.25.

(2) Exports. For exports of hazardous waste subject to the requirements of Sections R315-262-80 through R315-262-84, a transporter may not accept hazardous waste without a manifest signed by the generator in accordance with Section R315-263-20, as appropriate, and [~~for exports occurring under the terms of consent issued by EPA on or after December 31, 2016,~~]a movement document that includes the information require by Subsection R315-262-83(d).

(3) Compliance date for form revisions. The revised manifest form and procedures in Sections R315-260-10, R315-261-7, R315-263-20, and R315-263-21, had an effective date of September 5, 2006.

(4) Use of electronic manifest legal equivalence to paper forms for participating transporters. Electronic manifests that are gotten, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with Section R315-263-20 in lieu of EPA Forms 8700-22 and 8700-22A, are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy any requirement in Title R315 to get, complete, sign, carry, provide, give, use, or keep a manifest.

(i) Any requirement in Title R315 to sign a manifest or manifest certification by hand, or to get a handwritten signature, is satisfied by signing with or getting a valid and enforceable electronic signature within the meaning of 40 CFR 262.25.

(ii) Any requirement in Title R315 to give, provide, send, forward, or return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person by submission to the system.

(iii) Any requirement in Title R315 for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person who is scheduled to receive delivery of the waste shipment, except that to the extent that the Hazardous Materials regulation on shipping papers for carriage by public highway requires transporters of hazardous materials to carry a paper document to comply with 49 CFR 177.817, a hazardous waste transporter shall carry one printed copy of the electronic manifest on the transport vehicle.

(iv) Any requirement in Title R315 for a transporter to keep a copy of a manifest is satisfied by the retention of an electronic manifest in the transporter's account on the e-Manifest system, if the copies are readily available for viewing and production if requested by any EPA or Utah inspector.

(v) No transporter may be held liable for the inability to produce an electronic manifest for inspection under Section R315-263-20 if that transporter can demonstrate that the inability to produce the electronic manifest is exclusively due to a technical difficulty with the EPA system for which the transporter bears no responsibility.

(5) A transporter may participate in the electronic manifest system either by accessing the electronic manifest system from the transporter's own electronic equipment, or by accessing the electronic manifest system from the equipment provided by a participating generator, by another transporter, or by a designated facility.

(6) Special procedures if electronic manifest is not available. If after a manifest has been originated electronically and signed electronically by the initial transporter, and the electronic manifest system should become unavailable for any reason, then:

(i) The transporter in possession of the hazardous waste when the electronic manifest becomes unavailable shall reproduce sufficient copies of the printed manifest that is carried on the transport vehicle pursuant to Subsection R315-263-20(a)(4)(iii)(A), or get and complete another paper manifest for this purpose. The transporter shall reproduce sufficient copies to provide the transporter and each subsequent waste handler with a copy for their files, plus two additional copies that will be delivered to the designated facility with the hazardous waste.

(ii) On each printed copy, the transporter shall include a notation in the Special Handling and Additional Description space, Item 14, that the paper manifest is a replacement manifest for a manifest originated in the electronic manifest system, shall include, if not pre-printed on the replacement manifest, the manifest tracking number of the electronic manifest that is replaced by the paper manifest, and shall also include a brief explanation why the electronic manifest was not available for completing the tracking of the shipment electronically.

(iii) A transporter signing a replacement manifest to acknowledge receipt of the hazardous waste shall ensure that each paper copy is individually signed and that a legible handwritten signature appears on each copy.

(iv) From the point that the electronic manifest is no longer available for tracking the waste shipment, the paper replacement manifest copies shall be carried, signed, kept as records, and given to a subsequent transporter or to the designated facility, following the instructions, procedures, and requirements that apply to the use of paper manifests.

(7) Special procedures for electronic signature methods undergoing tests. If a transporter using an electronic manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the transporter shall sign the electronic manifest electronically and also sign with an ink signature the transporter acknowledgement of receipt of materials on the printed copy of the manifest that is carried on the vehicle in accordance with Subsection R315-263-20(a)(4)(iii)(A). This printed copy bearing the generator's and transporter's ink signatures shall also be presented by the transporter to the designated facility to sign in ink to [~~indicate~~]show the receipt of the waste materials or to [~~indicate~~]show discrepancies. After the owner or operator of the designated facility has signed this printed manifest copy with its ink signature, the printed manifest copy shall be delivered to the designated facility with the waste materials.

(8) Reserved.

(9) Post-receipt manifest data corrections. After facilities have certified [~~to the receipt of hazardous wastes~~]that the manifest is complete, by signing it when it is submitted to the EPA e-Manifest system,[~~Item 20 of the manifest,~~] any post-receipt data corrections may be submitted at any time by any interested person, such as the waste handler, named on the manifest. If corrections are requested by the director for portions of the manifest that a transporter is required to complete, the transporter shall address the data correction within 30 days from the date of the request. [~~Transporters may participate~~]Data correction submissions shall be made electronically [~~in~~]via the post-receipt data corrections process [~~by following the process~~]as described in Subsection R315-264-71(l), which applies to corrections made to either paper or electronic manifests[~~records~~].

(b) Before transporting the hazardous waste, the transporter shall sign and date the manifest acknowledging acceptance of the hazardous waste from the generator. The transporter shall return a signed copy to the generator before leaving the generator's property.

(c) The transporter shall ensure that the manifest accompanies the hazardous waste. [~~In the case of~~] For exports[~~occurring under the terms of a consent issued by EPA to the exporter on or after December 31, 2016~~], the transporter shall ensure that a movement document that includes the information required by Subsection R315-262-83(d) also accompanies the hazardous waste. [~~In the case of~~] For imports[~~occurring under the terms of a consent issued by EPA to the country of export or the importer on or after December 31, 2016~~], the transporter shall ensure that a movement document that includes the information required by Subsection R315-262-84(d) also accompanies the hazardous waste.

(d) A transporter who delivers a hazardous waste to another transporter or to the designated facility shall:

(1) get the date of delivery and the handwritten signature of that transporter or of the owner or operator of the designated facility on the manifest; and

(2) keep one copy of the manifest in accordance with Section R315-263-22; and

(3) give the remaining copies of the manifest to the accepting transporter or designated facility.

(e) The requirements of Subsections R315-263-20(c), R315-263-20(d) and R315-263-20(f) do not apply to water, bulk shipment, transporters if:

(1) the hazardous waste is delivered by water, bulk shipment, to the designated facility; and

(2) a shipping paper containing the information required on the manifest; excluding the EPA identification numbers, generator certification, and signatures; and, for exports or imports occurring under the terms of a consent issued by EPA on or after December 31, 2016, a movement document that includes the information required by Subsection R315-262-83(d) or R315-262-84(d) accompanies the hazardous waste; and

(3) the delivering transporter gets the date of delivery and handwritten signature of the owner or operator of the designated facility on either the manifest or the shipping paper; and

(4) the person delivering the hazardous waste to the initial water, bulk shipment, transporter gets the date of delivery and signature of the water, bulk shipment, transporter on the manifest and forwards it to the designated facility; and

(5) a copy of the shipping paper or manifest is kept by each water, bulk shipment, transporter in accordance with Section R315-263-22.

(f) For shipments involving rail transportation, the requirements of Subsections R315-263-20(c), R315-263-20(d) and R315-263-20(e) do not apply and the [~~following~~]requirements listed in Subsections R315-263-20(f)(1) through R315-263-20(f)(5) do apply:

(1) When accepting hazardous waste from a non-rail transporter, the initial rail transporter shall:

(i) sign and date the manifest acknowledging acceptance of the hazardous waste;

(ii) return a signed copy of the manifest to the non-rail transporter;

(iii) forward at least three copies of the manifest to:

(A) the next non-rail transporter, if any; or

(B) the designated facility, if the shipment is delivered to that facility by rail; or

(C) the last rail transporter designated to handle the waste in the United States; and

(iv) keep one copy of the manifest and rail shipping paper in accordance with Section R315-263-22.

(2) Rail transporters shall ensure that a shipping paper containing the information required on the manifest; excluding the EPA identification numbers, generator certification, and signatures; and, for exports or imports occurring under the terms of a consent issued by EPA on or after December 31, 2016, a movement document that includes the information required by Subsection R315-262-83(d) or R315-262-84(d) always accompanies the hazardous waste.

[~~Note to Subsection R315-263-20(f)(2):~~](i) Intermediate rail transporters are not required to sign the manifest, movement document, or shipping paper.

(3) When delivering hazardous waste to the designated facility, a rail transporter shall:

(i) get the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper, if the manifest has not been received by the facility; and

(ii) keep a copy of the manifest or signed shipping paper in accordance with Section R315-263-22.

(4) When delivering hazardous waste to a non-rail transporter a rail transporter shall:

(i) get the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and

(ii) keep a copy of the manifest in accordance with Section R315-263-22.

(5) Before accepting hazardous waste from a rail transporter, a non-rail transporter shall sign and date the manifest and provide a copy to the rail transporter.

(g) Transporters who transport hazardous waste out of the United States shall:

(1) sign and date the manifest in the International Shipments block on the continuation sheet, EPA Form 8700-22A, to [~~indicate~~]show the date that the shipment left the United States or has been delivered to a seaport of exit for loading onto an international carrier;

(2) keep one copy in accordance with Subsection R315-263-22(d); and

(3) [~~return a signed copy of the manifest to the generator; and~~]Compliance date for manifest returns on January 22, 2025. Beginning on January 22, 2025, return signed, top copies of the manifest and continuation sheet to the generator. On December 1, 2025, Subsection R315-263-20(g)(3) no longer applies, and Subsection R315-263-20(g)(4) applies instead.

(4) Compliance date for manifest returns on December 1, 2025. Beginning on December 1, 2025, return signed, top copies of the manifest and continuation sheet to the exporter.[~~for paper manifest only,~~

~~(i) send a copy of the manifest to the e-Manifest system in accordance with the allowable methods specified in Subsection R315-264-71(a)(2)(v); and~~

~~(ii) for shipments initiated before the AES filing compliance date, when instructed by the exporter to do so, give a copy of the manifest to a U.S. Customs official at the point of departure from the United States.~~]

(h) A transporter transporting hazardous waste from a generator who generates greater than 100 kilograms but less than 1,000 kilograms of hazardous waste in a calendar month need not comply with the requirements of Section 315-263-20 or those of Section R315-263-22 if:

(1) the waste is being transported pursuant to a reclamation agreement as provided for in Subsection R315-262-20(e);

(2) the transporter records, on a log or shipping paper, the [~~following~~]information listed in Subsections R315-263-20(h)(2)(i) through R315-263-20(h)(2)(iv) for each shipment:

(i) the name, address, and [~~U.S.~~]US EPA Identification Number of the generator of the waste;

(ii) the quantity of waste accepted;

(iii) any DOT required shipping information; and

(iv) the date the waste is accepted;

(3) the transporter carries this record when transporting waste to the reclamation facility; and

(4) the transporter keeps these records for a period of at least three years after termination or expiration of the agreement.

KEY: hazardous waste
Date of Last Change: 2025[~~January 17, 2023~~]
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-264**	**Filing ID: 57496**

Agency Information

1. Title catchline:	Environmental Quality, Waste Management and Radiation Control, Waste Management	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, UT 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:
R315-264. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
4. Purpose of the new rule or reason for the change:
In February of 1997, the EPA finalized a rulemaking known as the Military Munitions Rule. Authorized states were not required to adopt this rule because it was considered less stringent than existing regulations. At that time, Utah adopted a few of the rules. In July of 2023, comments were received from the EPA that Utah should adopt more of the regulations promulgated in the Military Munitions Rule because Utah had begun to regulate military facilities in ways that appeared to be consistent with these

regulations. Utah then conducted a review of the proposed regulations in the Military Munitions Rule and it was determined that some, but not all, of the proposed rules should be adopted resulting in an amendment to Rule R315-264.

In July of 2024, the EPA finalized rulemaking that integrates e-Manifest with hazardous waste imports and exports and other manifest related reports, PCB manifest amendments, and technical corrections. This rulemaking amended federal regulations found in 40 CFR 264.

In December of 2024, the EPA finalized five regulatory amendments that had been withdrawn from a rulemaking in December of 2023. The amendments made technical corrections to various hazardous waste regulations including some in 40 CFR 264.

As an authorized state, Utah is required to maintain a program that is equivalent to the federal program and therefore, must amend R315-264 to conform with the federal regulations.

5. Summary of the new rule or change:

Subsection R315-264-1(i) is amended to add language stating that the Section R315-266-205 identifies when Rule R315-264 applies to the storage of military munitions classified as hazardous waste.

This rule also states that treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards of Rules R315-260 through R315-270.

Subsections R315-264-12(a)(2) and (4) are being amended to update the requirements for management of movement documents for the tracking of import and export of hazardous waste.

Subsection R315-264-71(a)(2) is being amended to remove manifest requirements that are outdated.

Subsection R315-264-71(a)(3) is being amended to update and clarify the information required to be listed on a hazardous waste manifest for imports and exports of hazardous waste.

Subsections R315-264-71(b)(4) and R315-264-71(d) are being amended to update the requirements for management of manifests and movement documents for the tracking of import and export of hazardous waste.

Subsection R315-264-71(d)(1) is being added to provide the requirements for post-receipt manifest data corrections.

Subsection R315-264-72(c) is being amended to add the requirement to submit discrepancy reports via the e-Manifest system beginning on 12/01/2025.

Subsection R315-264-72(g) is being amended to remove the requirement for facilities to send an amended manifest to a transporter and to state that transporters can access a copy of the amended manifest in the e-Manifest system.

Subsection R315-264-76(b) is being added to the rules to provide the requirements for electronic submission of unmanifested waste reports via the e-Manifest system beginning on 12/01/2025.

Sections R315-264-1200 through R315-264-1202 are being added to provide requirements for the storage of munitions and explosives hazardous waste.

Sections R315-264-1103 through R315-264-1107 are being renumbered due to the addition of Sections R315-264-1200 through R315-264-1202.

Additionally, the Division of Waste Management and Radiation Control, Waste Management (Division) is correcting typographical and formatting errors in Rule R315-264.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

It is not anticipated that this rulemaking will result in any cost or savings to the state budget because the state does not manage military munitions and is not an importer or exporter of hazardous waste.

B. Local governments:

It is not anticipated that this rulemaking will result in any cost or savings to local governments because there are no local governments in Utah that manage military munitions or import or export hazardous waste.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

It is not anticipated that the rulemaking regarding military munitions or import and export of hazardous waste will result in any cost or savings to small businesses that must comply with this rule because there are no small businesses in Utah engaged in these activities.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

There are three non-small businesses in Utah that are importers of hazardous waste. It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

It is not anticipated that the rulemaking regarding military munitions or import and export of hazardous waste will result in any cost or savings to persons other than small businesses, non-small businesses, state or local governments that must comply with these rules because there are no persons other than small businesses, non-small businesses, state or local governments in Utah engaged in these activities.

F. Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs above those costs that are already in place for affected persons who must comply with these rules except for the cost to the three non-small businesses in Utah that are importers of hazardous waste.

It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$3,744	$3,744	$3,744	$3,744	$3,744
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$3,744**	**$3,744**	**$3,744**	**$3,744**	**$3,744**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:		
Section 19-6-105	Section 19-6-106	

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.	
A. Comments will be accepted until:	10/31/2025

10. This rule change MAY become effective on:	11/17/2025
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	09/12/2025

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-264. Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
R315-264-1. General -- Purpose, Scope and Applicability.

(a) The purpose of Rule R315-264 is to establish minimum standards that define the acceptable management of hazardous waste.

(b) The standards in Rule R315-264 apply to each owner and operator of facilities that treat, store, or dispose of hazardous waste, except as specifically provided otherwise in Rule R315-264 or R315-261.

(c) Reserved.

(d) The requirements of Rule R315-264 apply to a person disposing of hazardous waste by underground injection subject to a permit issued under an Underground Injection Control (UIC) program approved or promulgated under the Safe Drinking Water Act only to the extent they are required by 40 CFR 144.14. Rule R315-264 applies to the above ground treatment or storage of hazardous waste before it is injected underground.

(e) The requirements of Rule R315-264 apply to each owner or operator of a POTW that treats, stores, or disposes of hazardous waste only to the extent they are included in a RCRA permit by rule granted to such a person under Rule R315-270.

(f) Reserved.

(g) The requirements of Rule R315-264 do not apply to the Subsections R315-264-1(g)(1) through R315-264-1(g)(13):

(1) The owner or operator of a facility permitted under Rules R315-301 through R315-320 to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under Rule R315-264 by Section R315-262-14.

(2) The owner or operator of a facility managing recyclable materials described in Subsections R315-261-6(a)(2), R315-261-6(a)(3), and R315-261-6(a)(4), except to the extent they are referred to in Rule R315-15 or Sections R315-266-20 through R315-266-23, R315-266-70, R315-266-80, or R315-266-100 through R315-266-112.

(3) A generator accumulating waste on[-]-site in compliance with Sections R315-262-14, R315-262-15, R315-262-16, or R315-262-17 or Sections R315-262-200 through R315-262-216 or Sections R315-262-230 through R315-262-233.

(4) A farmer disposing of waste pesticides from the farmer's own use in compliance with Section R315-262-70.

(5) The owner or operator of a totally enclosed treatment facility, as defined in Section R315-260-10.

(6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in Section R315-260-10, shall comply with the requirements set out in Subsection R315-264-17(b) if the owner or operator is diluting hazardous ignitable (D001) wastes, other than the D001 High TOC Subcategory defined in Section R315-268-40, or reactive (D003) waste, to remove the characteristic before land disposal.

(7) Reserved.

(8)(i) Except as provided in Subsection R315-264-1(g)(8)(ii), a person engaged in treatment or containment activities during immediate response to any of the situations in Subsections R315-264-1(g)(8)(i) through R315-264-1(g)(8)(iv):

(A) a discharge of a hazardous waste;

(B) an imminent and substantial threat of a discharge of hazardous waste; or

(C) a discharge of a material that, if discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by Rule R315-264 shall comply with the applicable requirements of Sections R315-264-30 through R315-264-35, R315-264-37, and R315-264-50 through R315-264-56.

(iii) Any person who is covered by Subsection R315-264-1(g)(8)(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to the applicable requirements of Rule R315-264 and 40 CFR 122 and 123 and Rule R315-124 for those activities.

(iv) In the case of an explosives or munitions emergency response, if a federal, state, tribal or local official acting within the scope of their official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste

by transporters who do not have EPA identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall keep records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(9) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.

(10) The addition of absorbent material to waste in a container, as defined in Section R315-260-10, or the addition of waste to absorbent material in a container, if these actions occur when waste is first placed in the container, and Subsection R315-264-17(b) and Sections R315-264-171 and R315-264-172 are complied with.

(11) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, handling the wastes listed in Subsections R315-264-1(g)(11)(i) through R315-264-1(g)(11)(vi). These handlers are subject to regulation under Rule R315-273, if handling the universal wastes listed in Subsections R315-264-1(g)(11)(i) through R315-264-1(g)(11)(vi):

(i) batteries as described in Section R315-273-2;

(ii) pesticides as described in Section R315-273-3;

(iii) mercury containing equipment as described in Section R315-273-4;

(iv) lamps as described in Section R315-273-5;

(v) aerosol cans as described in Section R315-272-6; and

(vi) antifreeze as described in Section R315-273-7.

(12) Reserved.

(13) Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in Section R315-266-500. Reverse distributors are subject to regulation under Sections R315-266-500 through R315-266-510 in lieu of Rule R315-264 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

(h) The requirements of Rule R315-264 apply to each owner or operator of facilities that treat, store, or dispose of hazardous wastes referred to in Rule R315-268.

(i) [~~Reserved~~]Section R315-266-205 identifies when the requirements of Rule R315-264 apply to the storage of military munitions classified as solid waste in accordance with Section R315-266-202. The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in Rules R315-260 through R315-270.

(j) The requirements of Sections R315-264-10 through R315-264-19, R315-264-30 through R315-264-37, R315-264-50 through R315-264-56, and R315-264-101 do not apply to remediation waste management sites. However, remediation waste management sites may be a part of a facility that is subject to a traditional hazardous waste permit because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes. In these cases, Sections R315-264-10 through R315-264-19, R315-264-30 through R315-264-37, R315-264-50 through R315-264-56, and R315-264-101 do apply to the facility subject to the traditional hazardous waste permit. Instead of the requirements of Sections R315-264-10 through R315-264-19, R315-264-30 through R315-264-37, and R315-264-50 through R315-264-56, owners or operators of remediation waste management sites shall comply with Subsections R315-264-1(j)(1) through R315-264-1(j)(13):

(1) Get an EPA identification number by applying to the director using EPA Form 8700-12.

(2) Get a detailed chemical and physical analysis of a representative sample of the hazardous remediation wastes to be managed at the site. At a minimum, the analysis shall contain the information that shall be known to treat, store or dispose of the waste according to Rules R315-264 and R315-268, and shall be kept accurate and up to date.

(3) Prevent people who are unaware of the danger from entering, and minimize the possibility for unauthorized people or livestock to enter onto the active portion of the remediation waste management site, unless the owner or operator can demonstrate to the director that:

(i) physical contact with the waste, structures, or equipment within the active portion of the remediation waste management site may not injure people or livestock who may enter the active portion of the remediation waste management site; and

(ii) disturbance of the waste or equipment by people or livestock who enter onto the active portion of the remediation waste management site, may not cause a violation of the requirements of Rule R315-264.

(4) Inspect the remediation waste management site for malfunctions, deterioration, operator errors, and discharges that may be causing, or may lead to, a release of hazardous waste constituents to the environment, or a threat to human health. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment and shall remedy the problem before it leads to a human health or environmental hazard. If a hazard is imminent or has already occurred, the owner or operator shall take remedial action immediately.

(5) Provide personnel with classroom or on-the-job training on how to perform their duties in a way that ensures the remediation waste management site complies with the requirements of Rule R315-264, and on how to respond effectively to emergencies.

(6) Take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and prevent threats to human health and the environment from ignitable, reactive, and incompatible waste.

(7) For remediation waste management sites subject to regulation under Sections R315-264-170 through R315-264-179, R315-264-190 through R315-264-200, R315-264-220 through R315-264-232, R315-264-250 through R315-264-259, R315-264-270 through R315-264-283, R315-264-300 through R315-264-317, R315-264-340 through R315-264-351, and R315-264-600 through R315-264-603, the owner or operator shall design, construct, operate, and maintain a unit within a 100-year floodplain to prevent washout of any hazardous waste by a 100-year flood, unless the owner or operator can meet the demonstration of Subsection R315-264-18(b).

(8) Not place any non-containerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine, or cave.

(9) Develop and maintain a construction quality assurance program for each surface impoundment, waste pile, and landfill unit that are required to comply with Subsections R315-264-221(c) and R315-264-221(d), R315-264-251(c) and R315-264-251(d), and R315-264-301(c) and R315-264-301(d) at the remediation waste management site, according to the requirements of Section R315-264-19.

(10) Develop and maintain procedures to prevent accidents and a contingency and emergency plan to control accidents that occur. These procedures shall address proper design, construction, maintenance, and operation of remediation waste management units at the site. The goal of the plan shall be to minimize the possibility of, and the hazards from a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. The plan shall explain specifically how to treat, store and dispose of the hazardous remediation waste in question, and shall be implemented immediately if a fire, explosion, or release of hazardous waste or hazardous waste constituents could threaten human health or the environment.

(11) Designate at least one employee, either on the facility premises or on call, that is, available to respond to an emergency by reaching the facility quickly, to coordinate emergency response measures. This emergency coordinator shall be thoroughly familiar with the facility's contingency plan, operations and activities at the facility, the location and characteristics of waste handled, the location of the records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan.

(12) Develop, maintain, and implement a plan to meet the requirements in Subsections R315-264-1(j)(2) through R315-264-1(j)(6) and R315-264-1(j)(9) through R315-264-1(j)(10).

(13) Maintain records documenting compliance with Subsections R315-264-1(j)(1) through R315-264-1(j)(12).

R315-264-12. General Facility Standards - Required Notices.

(a) The owner or operator of a facility that is arranging or has arranged to receive hazardous waste subject to Sections R315-262-80 through R315-262-84 from a foreign source shall submit the notices required by Subsections R315-264-12(a)(1) through R315-264-12(a)(4):

(1) In accordance with Subsection R315-262-84(b), for imports where the competent authority of the country of export does not require the foreign exporter to submit to it a notification proposing export and get consent from EPA and the competent authorities for the countries of transit, the owner or operator of the facility, if acting as the importer, shall provide notification of the proposed transboundary movement in English to EPA using the allowable methods listed in Subsection R315-262-84(b)(1) at least 60 days before the first shipment is expected to depart the country of export. The notification may cover up to one year of shipments of wastes having similar physical and chemical characteristics, the same United Nations classification, the same RCRA waste codes and OECD waste codes, and being sent from the same foreign exporter.

(2) In accordance with Subsection R315-262-84(d)(2)(xv), a copy of the movement document bearing each required signature within three working days of receipt of the shipment to the foreign exporter[~~,~~] and to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively.[~~, and~~] For shipments received on or after the electronic import export reporting compliance date, the receiving facility shall close out the movement document[~~to EPA electronically~~] confirm receipt within three working days of shipment delivery using EPA's Waste Import Export Tracking System (WIETS), or its successor system. For shipments sent from a country with which the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use WIETS or its successor system to send movement document confirmation data back through the electronic exchange to the foreign exporter and the country of export. The original of the signed movement document shall be maintained at the facility for at least three years. The owner or operator of a facility may satisfy this recordkeeping requirement by keeping electronically submitted documents in the facility's account on EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, if copies are readily available for viewing and production if requested by any EPA or Utah inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under Section R315-264-12 if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system [~~that~~]for which the owner or operator of a facility bears no responsibility.

(3) In accordance with Subsection R315-262-84(f)(4), if the facility has physical control of the waste and it must be sent to an alternate facility or returned to the country of export, the owner or operator of the facility shall inform EPA, using the allowable methods listed in Subsection R315-262-84(b)(1) of the need to return or arrange alternate management of the shipment.

(4) In accordance with Subsection R315-262-84(g), the owner or operator shall:

(i) Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and for shipments recycled or disposed of on or after the electronic import export reporting compliance date, to EPA electronically using EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system. For shipments sent from a country with which the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use WIETS or its successor system to send confirmation of recovery or disposal data back through the electronic exchange to the foreign exporter and the country of export.

(ii) If the facility performed any of recovery operations R12, R13, or RC3, or disposal operations D13 through D15, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC1, or one of disposal operations D1 through D12, or DC1 to DC2, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import export reporting compliance date, to EPA electronically using EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system. The recovery and disposal operations in Subsection R315-264-12(a)(4)(ii) are defined in Section R315-262-81. For shipments sent from a country with which the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use WIETS or its successor system to send confirmation of recovery or disposal data back through the electronic exchange to the country of export.

(b) The owner or operator of a facility that receives hazardous waste from an off-site source, except if the owner or operator is also the generator, shall inform the generator in writing that the owner or operator has the appropriate permits for, and will accept, the waste the generator is shipping. The owner or operator shall keep a copy of this written notice as part of the operating record.

(c) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator shall notify the new owner or operator in writing of the requirements of Rule R315-264 and Rule R315-270. An owner's or operator's failure to notify the new owner or operator of the requirements of Rule R315-264 in no way relieves the new owner or operator of their obligation to comply with the applicable requirements.

R315-264-71. Manifest System, Recordkeeping, and Reporting -- Use of Manifest System.

(a)(1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator or the owner or operator's agent shall sign and date the manifest as indicated in Subsection R315-264-71(a)(2) to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the [~~d~~]Discrepancy Indication [~~s~~]Space of the manifest, or that the hazardous waste was rejected as noted in the manifest [~~d~~]Discrepancy Indication [~~s~~]Space.

(2) If the facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator, or the owner or operator's agent shall:

(i) sign and date, by hand, each copy of the manifest;

(ii) note any discrepancies, as defined in Subsection R315-264-72(a), on each copy of the manifest;

(iii) immediately give the transporter at least one copy of the manifest;

(iv) [~~within 30 days of delivery, send a copy, Page 2, of the manifest to the generator;~~]Reserved;

(v) paper manifest submission requirements are:

(A) [~~Options for compliance on June 30, 2018. Beginning on June 30, 2018, send the top copy, Page 1, of any paper manifest and any paper continuation sheet to the e-Manifest system for data entry and processing, or in lieu of submitting the paper copy to EPA, the owner or operator may transmit to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made at the mailing address or electronic mail or submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, EPA will not accept mailed paper manifests from facilities for processing in e-Manifest.~~]Reserved.

(B) Options for compliance on June 30, 2021. [~~Beginning on June 30, 2021, the requirement to submit the top copy, Page 1, of the paper manifest and any paper continuation sheet to the e-Manifest system for data entry and processing may be met by the owner or operator only by transmitting~~]Send to the EPA e-Manifest system an image file of Page 1 of the manifest and any continuation sheet, or [~~by transmitting~~]send to the EPA e-Manifest system both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery;[~~. Submissions of copies to the e-Manifest system shall be made to the electronic mail or submission address specified at the e-Manifest program website's directory of services;~~] and

(vi) keep at the facility a copy of each manifest for at least three years from the date of delivery.

(3) The owner or operator of a facility receiving hazardous waste subject to Sections R315-262-80 through R315-262-84 from a foreign source shall:

(i) additionally, list the relevant waste stream consent number from consent documentation supplied by EPA to the facility for each waste listed on the manifest in the International Shipments block on the continuation sheet, EPA Form 8700-22A, matched to the relevant list number for the waste from block 9b. If additional space is needed, the owner or operator should use an additional continuation sheet or sheets, EPA Form 8700-22A; and

(ii) send a copy of the manifest within 30 days of delivery [~~to EPA using the addresses listed in Subsection R315-262-82(e) until the facility can submit a copy~~]to the e-Manifest system per Subsection R315-264-71(a)(2)(v).

(b) If a facility receives, from a rail or water, bulk shipment, transporter, hazardous waste that is accompanied by a shipping paper containing the information required on the manifest; excluding the EPA identification numbers, generator's certification, and signatures; the owner or operator, or the owner or operator's agent, shall:

(1) sign and date each copy of the manifest or shipping paper, if the manifest has not been received, to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) note any significant discrepancies, as defined in Subsection R315-264-72(a), in the manifest or shipping paper, if the manifest has not been received, on each copy of the manifest or shipping paper. The director does not intend that the owner or operator of a facility whose procedures under Subsection R315-264-13(c) include waste analysis shall perform that analysis before signing the shipping paper and giving it to the transporter. Subsection R315-264-72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

(3) immediately give the rail or water, bulk shipment, transporter at least one copy of the manifest or shipping paper, if the manifest has not been received;

(4) within 30 days of[~~after the~~] delivery, send a copy of Page 1 of the signed and dated manifest to the EPA e-Manifest system[~~or a signed and dated copy of the shipping paper, if the manifest has not been received within 30 days after delivery, to the generator~~]; and

Comment: Subsection R315-262-23(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water, bulk shipment.

(5) keep at the facility a copy of the manifest and shipping paper, if signed in lieu of the manifest when delivered, for at least three years from the date of delivery.

(c) When a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements of Rule R315-262. Sections R315-262-15, R315-262-16, and R315-262-17 are applicable to the on-site accumulation of

hazardous wastes by generators. Therefore, Sections R315-262-15, R315-262-16, and R315-262-17 only apply to owners or operators who are shipping hazardous waste that they generated at that facility or operating as a large quantity generator consolidating hazardous waste from very small quantity generators under Subsection R315-262-17(f).

(d) [~~As per Subsection~~]In accordance with Subsection R315-262-84(d)(2)(xv), within three working days of the receipt of a shipment subject to Sections R315-262-80 through R315-262-84, the owner or operator of a facility shall provide a copy of the movement document bearing the required signatures to the foreign exporter[~~;~~] and to the competent authorities of the countries of export and transit that control the shipment as an export and transit of hazardous waste respectively[~~;~~]. For shipments received[~~and~~] on or after the electronic import[~~-~~] export reporting compliance date, the receiving facility shall close out the movement document to confirm receipt within three working days of shipment delivery[~~to EPA electronically~~] using EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system. For shipments sent from a country with which EPA has established an electronic exchange of movement document tracking data, the receiving facility may use WIETS or its successor system to send movement document confirmation data back through the electronic exchange to the foreign exporter and the country of export. The original copy of the movement document shall be maintained at the facility for at least three years from the date of signature. The owner or operator of a facility may satisfy this recordkeeping requirement by keeping electronically submitted documents in the facility's account on EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, if the copies are readily available for viewing and production if requested by any EPA or Utah inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under Section R315-264-71 if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, for which the owner or operator of a facility bears no responsibility.

(1) Post-receipt manifest data corrections. After facilities have certified that the manifest is complete, by signing it when it is submitted to the EPA e-Manifest system, any post-receipt data corrections may be submitted at any time by any interested person, for example a waste handler, named on the manifest. If corrections are requested by the director for portions of the manifest that a designated facility is required to complete, the facility shall make the data correction within 30 days from the date of the request.

(e) A facility shall determine whether the consignment state for a shipment regulates any additional wastes, beyond those regulated federally, as hazardous wastes under its state hazardous waste program. Facilities shall also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to these states.

(f) Legal equivalence to paper manifests. Electronic manifests that are gotten, completed, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with Section R315-264-71 in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy any requirement in Title R315 to get, complete, sign, provide, use, or keep a manifest.

(1) Any requirement in Title R315 for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to get a handwritten signature, is satisfied by signing with or getting a valid and enforceable electronic signature within the meaning of 40 CFR 262.25.

(2) Any requirement in Title R315 to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an electronic manifest is transmitted to the other person.

(3) Any requirement in Title R315 for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an electronic manifest is accessible during transportation and forwarded to the person who is scheduled to receive delivery of the waste shipment.

(4) Any requirement in Title R315 for an owner or operator to keep a copy of each manifest is satisfied by the retention of the facility's electronic manifest copies in its account on the e-Manifest system, if the copies are readily available for viewing and production if requested by any EPA or Division of Waste Management and Radiation Control inspector.

(5) No owner or operator may be held liable for the inability to produce an electronic manifest for inspection under Section R315-264-71 if the owner or operator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the electronic manifest system for which the owner or operator bears no responsibility.

(g) An owner or operator may participate in the electronic manifest system either by accessing the electronic manifest system from the owner's or operator's electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the owner's or operator's site by the transporter who delivers the waste shipment to the facility.

(h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the [~~following~~]procedures in Subsections R315-264-71(h)(1) through R315-264-71(h)(4) apply to the delivery of the hazardous waste by the final transporter:

(1) Upon delivery of the hazardous waste to the designated facility, the owner or operator shall sign and date each copy of the paper replacement manifest by hand in Item 20, Designated Facility Certification of Receipt, and note any discrepancies in Item 18, Discrepancy Indication Space, of the paper replacement manifest.

(2) The owner or operator of the facility shall give back to the final transporter one copy of the paper replacement manifest.

(3) Within 30 days of delivery of the waste to the designated facility, the owner or operator of the facility shall send one signed and dated copy of the paper replacement manifest to the generator, and send an additional signed and dated copy of the paper replacement manifest to the electronic manifest system.

(4) The owner or operator of the facility shall keep at the facility one copy of the paper replacement manifest for at least three years from the date of delivery.

(i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an electronic manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the owner or operator shall also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink

signature on this printed copy, the owner or operator shall keep this original copy among its records for at least 3 years from the date of delivery of the waste.

(j) Imposition of user fee for manifest submissions.

(1) As prescribed in 40 CFR 264.1311, and determined in 40 CFR 264.1312, which are incorporated by reference, an owner or operator who is a user of the electronic manifest system shall be assessed a user fee by EPA for the submission and processing of each electronic and paper manifest. EPA shall update the schedule of user fees and publish them to the user community, as provided in 40 CFR 264.1313, which is [~~adopted and~~]incorporated by reference.

(2) An owner or operator subject to user fees under Section R315-264-71 shall make user fee payments in accordance with the requirements of 40 CFR 264.1314, which is incorporated by reference, subject to the informal fee dispute resolution process of 40 CFR 264.1316, which is incorporated by reference, and subject to the sanctions for delinquent payments under 40 CFR 264.1315, which is incorporated by reference.

(k) Electronic manifest signatures. Electronic manifest signatures shall meet the criteria described in 40 CFR 262.25.

(l) Post-receipt manifest data corrections. After facilities have certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any post-receipt data corrections may be submitted at any time by any interested person, such as the waste handler, shown on the manifest.

(1) Interested persons shall make each correction to manifest data by electronic submission, either by directly entering corrected data to the web based service provided in e-Manifest for the corrections, or by an upload of a data file containing data corrections relating to one or more previously submitted manifests.

(2) Each correction submission shall include[~~ the following information~~]:

(i) the Manifest Tracking Number and date of receipt by the facility of the original manifests for which data are being corrected;

(ii) the item numbers of the original manifest that is the subject of the submitted corrections; and

(iii) for each item number with corrected data, the data previously entered, and the corresponding data as corrected by the correction submission.

(3) Each correction submission shall include a statement that the person submitting the corrections certifies that to the best of their knowledge or belief, the corrections that are included in the submission will cause the information reported about the previously received hazardous wastes to be true, accurate, and complete.

(i) The certification statement shall be executed with a valid electronic signature; and

(ii) A batch upload of data corrections may be submitted under one certification statement.

(4) Upon receipt by the system of any correction submission, other interested persons shown on the manifest will be provided electronic notice of the submitter's corrections.

(5) Other interested persons shown on the manifest may respond to the submitter's corrections with comments to the submitter, or by submitting another correction to the system, certified by the respondent as specified in Subsection R315-264-71(l)(3), and with notice of the corrections to other interested persons shown on the manifest.

R315-264-72. Manifest Discrepancies.

(a) Manifest discrepancies are:

(1) significant differences, as defined by Subsection R315-264-72(b), between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives;

(2) rejected wastes, which may be a full or partial shipment of hazardous waste that the treatment, storage, or disposal facility cannot accept; or

(3) container residues, which are residues that exceed the quantity limits for empty containers set forth in Subsection R315-261-7(b) and Section R315-266-507.

(b) Significant differences in quantity are: for bulk waste, variations greater than 10% in weight; for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant differences in type are obvious differences that can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(c) Upon discovering a significant difference in quantity or type, the owner or operator shall try to reconcile the discrepancy with the waste generator or transporter, for example with telephone conversations. If the discrepancy is not resolved within [~~15~~]20 days after receiving the waste, the owner or operator shall:[~~ immediately submit to the director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.~~]

(1) immediately submit to the director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(2) Beginning on December 1, 2025, immediately submit a discrepancy report to the EPA e-Manifest system describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue. Beginning on December 1, 2025, the EPA will no longer accept mailed paper discrepancy reports from facilities.

(d)(1) Upon rejecting waste or identifying a container residue that exceeds the quantity limits for empty containers set forth in Subsection R315-261-7(b), the facility shall consult with the generator before forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative facility that can receive the waste, the facility may return the rejected waste or residue to the generator. The facility shall send the waste to the alternative facility or to the generator within 60 days of the rejection or the container residue identification.

(2) While the facility is making arrangements for forwarding rejected wastes or residues to another facility under Section R315-264-72, it shall ensure that either the delivering transporter keeps custody of the waste, or, the facility shall provide for secure, temporary custody

of the waste, pending delivery of the waste to the first transporter designated on the manifest prepared under Subsection R315-264-72(e) or R315-264-72(f).

(e) Except as provided in Subsection R315-264-72(e)(7), for full or partial load rejections and residues that are to be sent off-site to an alternate facility, the facility shall prepare a new manifest in accordance with Subsection R315-262-20(a) and the instructions contained in Subsections R315-264-72(e)(1) through R315-264-72(e)(7):

(1) Write the generator's [~~U.S.~~]US EPA ID number in Item 1 of the new manifest. Write the generator's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the generator's site address, then write the generator's site address in the designated space for Item 5.

(2) Write the name of the alternate designated facility and the facility's [~~U.S.~~]US EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and [~~indicate~~]state that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, [~~U.S.~~]US DOT Description, of the new manifest and write the container types, quantity, and volumes of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked, and labeled and is in proper condition for transportation, and mail a signed copy of the manifest to the generator identified in Item 5 of the new manifest.

(7) For full load rejections that are made while the transporter remains present at the facility, the facility may forward the rejected shipment to the alternate facility by completing Item 18b of the original manifest and supplying the information on the next destination facility in the Alternate Facility space. The facility shall keep a copy of this manifest for its records, and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-264-72(e)(1), R315-264-72(e)(2), R315-264-72(e)(3), R315-264-72(e)(4), R315-264-72(e)(5), and R315-264-72(e)(6).

(f) Except as provided in Subsection R315-264-72(f)(7), for rejected wastes and residues that shall be sent back to the generator, the facility shall prepare a new manifest in accordance with Subsection R315-262-20(a) and the instructions contained in Subsections R315-264-72(f)(1) through R315-264-72(f)(8):

(1) Write the facility's [~~U.S.~~]US EPA ID number in Item 1 of the new manifest. Write the facility's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the facility's site address, then write the facility's site address in the designated space for Item 5 of the new manifest.

(2) Write the name of the initial generator and the generator's [~~U.S.~~]US EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and [~~indicate~~]state that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, [~~U.S.~~]US DOT Description, of the new manifest and write the container types, quantity, and volumes of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as offeror of the shipment, that the waste has been properly packaged, marked, and labeled and is in proper condition for transportation.

(7) For full load rejections that are made while the transporter remains at the facility, the facility may return the shipment to the generator with the original manifest by completing Item 18a and 18b of the manifest and supplying the generator's information in the Alternate Facility space. The facility shall keep a copy for its records and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-264-72(f)(1), R315-264-72(f)(2), R315-264-72(f)(3), R315-264-72(f)(4), R315-264-72(f)(5), R315-264-72(f)(6), and R315-264-72(f)(8).

(8) For full or partial load rejections and container residues contained in non[-]-empty containers that are returned to the generator, the facility shall also comply with the exception reporting requirements in Subsection R315-262-42(a).

(g) If a facility rejects a waste or identifies a container residue that exceeds the quantity limits for empty containers set forth in Subsection R315-261-7(b) after it has signed, dated, and returned a copy of the manifest to the delivering transporter or to the generator, the facility shall amend its copy of the manifest to show the rejected wastes or residues in the [~~d~~]Discrepancy Indication [~~s~~]Space of the amended manifest. The facility shall also copy the manifest tracking number from Item 4 of the new manifest to the Discrepancy Indication [~~s~~]Space of the amended manifest[~~,~~] and shall re-sign and date the manifest to certify to the information as amended. The facility shall keep the amended manifest for at least three years from the date of amendment, and shall, within 30 days, send a copy of the amended manifest to the transporter [~~and generator~~]that received copies before the[~~ir being~~] manifest was amended. Facilities are not required to send the amended manifest to any transporter who is registered in the EPA's e-Manifest system. Registered transporters may get the signed and dated copy of a completed manifest from the EPA e-Manifest system in lieu of receiving the manifest through US postal mail.

R315-264-76. Unmanifested Waste Report.

(a) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described by Subsection R315-263-20(e), and if the waste is not excluded from the manifest requirement by Rules R315-260, through R315-266, R315-268, R315-270, and R315-273 then the owner or operator shall prepare

and submit a letter to the [~~D~~]director within 15 days after receiving the waste. The [~~u~~]Unmanifested [~~w~~]Waste [~~r~~]Report shall contain[~~ the following information~~]:

(1) [~~T~~]the EPA identification number, name, and address of the facility;

(2) [~~T~~]the date the facility received the waste;

(3) [~~T~~]the EPA identification number, name, and address of the generator and the transporter, if available;

(4) [~~A~~]a description and the quantity of each unmanifested hazardous waste the facility received;

(5) [~~T~~]the method of treatment, storage, or disposal for each hazardous waste;

(6) [~~T~~]the certification signed by the owner or operator of the facility or [~~his~~]the owner or operator's authorized representative; and[~~,~~];

(7) [~~A~~]a brief explanation of why the waste was unmanifested, if known.

(b) Beginning on December 1, 2025, if a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described by Subsection R315-263-20(e), and if the waste is not excluded from the manifest requirement by Rules R315-260, through R315-266, R315-268, R315-270, and R315-273 then the owner or operator shall prepare an electronic Unmanifested Waste Report in the EPA e-Manifest system for submission to the EPA within 15 days after receiving the waste. The Unmanifested Waste Report shall contain:

(1) the EPA identification number, name, and address of the facility;

(2) the date the facility received the waste;

(3) the EPA identification number, name, and address of the generator and the transporter, if available;

(4) a description and the quantity of each unmanifested hazardous waste the facility received;

(5) the method of treatment, storage, or disposal for each hazardous waste;

(6) the certification signed by the owner or operator of the facility or the owner or operator's authorized representative; and

(7) a brief explanation of why the waste was unmanifested, if known.

R315-264-301. Design and Operating Requirements.

(a) Any landfill that is not covered by Subsection R315-264-301(c) or [~~40 CFR ~~]R315-265[~~.~~]-301(a)[~~, which is adopted by reference,~~] shall have a liner system for [~~all portions of ~~]the landfill, except for portions of [~~such~~]the landfill that existed on or [~~prior to~~]before October 10, 1984. The liner system shall have:

(1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or ground water or surface water at anytime during the active life, including the closure period, of the landfill. The liner shall be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner shall be:

(i) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients, including static head and external hydrogeologic forces, physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

(ii) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

(iii) Installed to cover [~~all~~]any surrounding earth likely to be in contact with the waste or leachate; and

(2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The [~~D~~]director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall be:

(i) Constructed of materials that are:

(A) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

(B) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and by any equipment used at the landfill; and

(ii) Designed and operated to function without clogging through the scheduled closure of the landfill.

(b) The owner or operator shall be exempted from the requirements of Subsection R315-264-301(a) if the [~~D~~]director finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents, see Section R315-264-93, into the ground water or surface water at any future time. In deciding whether to grant an exemption, the [~~D~~]director shall consider:

(1) [~~T~~]the nature and quantity of the wastes;

(2) [~~T~~]the proposed alternate design and operation;

(3) [~~T~~]the hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and ground water or surface water; and

(4) [~~All~~]any other factors [~~which~~]that would influence the quality and mobility of the leachate produced and the potential for it to migrate to ground water or surface water.

(c) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that is to [~~commence~~]start reuse after July 29, 1992 shall install two or more liners and a leachate collection and removal system above and between [~~such~~]the liners. "Construction commences" is as defined in Section R315-260-10 under "existing facility".

(1)(i) The liner system shall include:

(A) A top liner designed and constructed of materials[~~, e.g.,~~] such as a geomembrane[~~,~~] to prevent the migration of hazardous constituents into [~~such~~]the liner during the active life and post-closure care period; and

(B) A composite bottom liner, consisting of at least two components. The upper component shall be designed and constructed of materials[~~, e.g.,~~] such as a geomembrane[~~,~~] to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component shall be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component shall be constructed of at least 91 cm, 3 feet, of compacted soil material with a hydraulic conductivity of no more than 1 x 10[~~1~~7]$^{-7}$ cm/sec.

(ii) The liners shall comply with Subsections R315-264-301(a)(1)(i), R315-264-301(a)(1)(ii), and R315-264-301(a)(1)(iii).

(2) The leachate collection and removal system immediately above the top liner shall be designed, constructed, operated, and maintained to collect and remove leachate from the landfill during the active life and post-closure care period. The [~~D~~]director shall specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm, one foot. The leachate collection and removal system shall comply with Subsections R315-264-301(c)(3)(iii) and R315-264-301(c)(3)(iv).

(3) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system. This leak detection system shall be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through [~~all~~]any areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a leak detection system in Subsection R315-264-301(c) are satisfied by installation of a system that is, at a minimum:

(i) Constructed with a bottom slope of [~~one percent~~]1% or more;

(ii) Constructed of granular drainage materials with a hydraulic conductivity of 1[~~H10!2~~] x 10^{-2} cm/sec or more and a thickness of 30.5 cm, 12 inches, or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3 x 10[~~!5~~]$^{-5}$ m[~~2~~]^2/sec or more;

(iii) Constructed of materials that are chemically resistant to the waste managed in the landfill and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the landfill;

(iv) Designed and operated to minimize clogging during the active life and post-closure care period; and

(v) Constructed with sumps and liquid removal methods[~~, e.g.,~~] such as pumps[~~,~~] of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit shall have its own sump[~~(s)~~] or sumps. The design of each sump and removal system shall provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

(4) The owner or operator shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom liner.

(5) The owner or operator of a leak detection system that is not located completely above the seasonal high water table shall demonstrate that the operation of the leak detection system will not be adversely affected by the presence of ground water.

(d) The [~~D~~]director may approve alternative design or operating practices to those specified in Subsection R315-264-301(c) if the owner or operator demonstrates to the [~~D~~]director that [~~such~~]the design and operating practices, together with location characteristics:

(1) Will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal systems specified in Subsection R315-264-301(c); and

(2) Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

(e) The double liner requirement set forth in Subsection R315-264-301(c) may be waived by the [~~D~~]director for any monofill, if:

(1) [~~T~~]the monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and [~~such~~]the wastes do not contain constituents [~~which~~]that would [~~render~~]make the wastes hazardous for reasons other than the Toxicity Characteristic in Section R315-261-24, with EPA Hazardous Waste Numbers D004 through D017; and

(2)(i)(A) [~~T~~]the monofill has at least one liner for which there is no evidence that such liner is leaking;

(B) [~~T~~]the monofill is located more than one-quarter mile from an "underground source of drinking water," as that term is defined in Section R315-270-2[~~)~~]; and

(C) [~~T~~]the monofill is in compliance with generally applicable ground[~~-~~] water monitoring requirements for facilities with permits under Section 19-6-108; or

(ii) [~~T~~]the owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(f) The owner or operator of any replacement landfill unit is exempt from Subsection R315-264-301(c) if:

(1) The existing unit was constructed in compliance with the design standards of [~~s~~]Section 3004(o)(1)(A)(i) and 3004(o)(5) of the Resource Conservation and Recovery Act; and

(2) There is no reason to believe that the liner is not functioning as designed.

(g) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 24-hour, 25-year storm.

(h) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(i) Collection and holding facilities[~~, e.g.,~~] such as tanks or basins[~~,~~] associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(j) If the landfill contains any particulate matter [~~which~~]that may be subject to wind dispersal, the owner or operator shall cover or otherwise manage the landfill to control wind dispersal.

(k) The [~~D~~]director shall specify in the permit [~~all~~]the design and operating practices that are necessary to ensure that the requirements of Section R315-264-301 are satisfied.

R315-264-1200. Hazardous Waste Munitions and Explosives Storage -- Applicability.

The requirements of Sections R315-264-1200 through R315-264-1202 apply to owners or operators who store munitions and explosive hazardous wastes, except as Section R315-264-1 provides otherwise. Depending on explosive hazards, hazardous waste munitions and explosives may also be managed in other types of storage units, including containment buildings, Sections R315-264-1100 through R315-264-1102, tanks, Sections R315-264-190 through R315-264-200, or containers, Sections R315-264-170 through R315-264-179. See Section R315-266-205 for storage of waste military munitions.

R315-264-1201. Hazardous Waste Munitions and Explosives Storage -- Design and Operating Standards.

(a) Hazardous waste munitions and explosives storage units shall be designed and operated with containment systems, controls, and monitoring, that:

(1) minimize the potential for detonation or other means of release of hazardous waste, hazardous constituents, hazardous decomposition products, or contaminated run-off, to the soil, ground water, surface water, and atmosphere;

(2) provide a primary barrier, that may be a container, including a shell, or tank, designed to contain the hazardous waste;

(3) for wastes stored outdoors, provide that the waste and containers will not be in standing precipitation;

(4) for liquid wastes, provide a secondary containment system that assures that any released liquids are contained and promptly detected and removed from the waste area, or vapor detection system that assures that any released liquids or vapors are promptly detected and an appropriate response taken, for example, additional containment, such as overpacking, or removal from the waste area; and

(5) provide monitoring and inspection procedures that assure the controls and containment systems are working as designed and that releases that may adversely impact human health or the environment are not escaping from the unit.

(b) Hazardous waste munitions and explosives stored in accordance with Sections R315-264-1200 through R315-264-1202 may be stored in:

(1) earth-covered magazines. Earth-covered magazines shall be:

(i) constructed of waterproofed, reinforced concrete or structural steel arches, with steel doors that are kept closed when not being accessed;

(ii) designed and constructed:

(A) to be of sufficient strength and thickness to support the weight of any explosives or munitions stored and any equipment used in the unit;

(B) to provide working space for personnel and equipment in the unit; and

(C) to withstand movement activities that occur in the unit; and

(iii) located and designed with walls and earthen covers that direct an explosion in the unit in a safe direction, so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion;

(2) above ground magazines. Above ground magazines shall be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion; or

(3) outdoor or open storage areas. Outdoor or open storage areas shall be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

(c) Hazardous waste munitions and explosives shall be stored in accordance with a Standard Operating Procedure specifying procedures to ensure safety, security, and environmental protection. If these procedures serve the same purpose as the security and inspection requirements of Section R315-264-14, the preparedness and prevention procedures of Sections R315-264-30 through R315-264-37, and the contingency plan and emergency procedures requirements of Sections R315-264-50 through R315-264-56, then these procedures will be used to fulfill those requirements.

(d) Hazardous waste munitions and explosives shall be packaged to ensure safety in handling and storage.

(e) Hazardous waste munitions and explosives shall be inventoried at least annually.

(f) Hazardous waste munitions and explosives and their storage units shall be inspected and monitored to ensure explosives safety and to ensure that there is no migration of contaminants out of the unit.

R315-264-1202. Hazardous Waste Munitions and Explosives Storage -- Closure and Post-Closure Care.

(a) At closure of a magazine or unit that stored hazardous waste in accordance with Sections R315-264-1200 through R315-264-1202, the owner or operator shall remove or decontaminate any waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste, and manage them as hazardous waste unless Subsection R315-261-3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for magazines or units shall meet the requirements specified in Sections R315-264-110 through R315-264-120 and Sections R315-264-140 through R315-264-151, except that the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.

(b) If, after removing or decontaminating any residues and making reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-264-1202(a), the owner or operator finds that not every contaminated subsoil can be practicably removed or decontaminated, the owner or operator shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills contained in Section R315-264-310.

R315-264-[~~1103~~]1400. Appendix I to Rule R315-264 -- Recordkeeping Instructions.

(a) The recordkeeping [~~provisions~~]requirements of Section R315-264-73 specify that an owner or operator shall keep a written operating record at [~~his~~]the owner or operator's facility. This appendix provides additional instructions for keeping portions of the operating record. See Subsection R315-264-73(b) for additional recordkeeping requirements.

(b) Records of each hazardous waste received, treated, stored, or disposed of at the facility that contain the [~~The following~~]information listed in Subsections R315-264-1400(b)(1) through R315-264-1400(b)(3) shall be recorded, as it becomes available, and maintained in the operating record until closure of the facility[~~ in the following manner~~]:[

~~Records of each hazardous waste received, treated, stored, or disposed of at the facility which include the following:~~]

(1) A description by its common name and the EPA Hazardous Waste Number[~~(s)~~]s from Rule R315-261 [~~which~~]that apply to the waste. The waste description also shall include the waste's physical form, [~~i.e.~~]that is, liquid, sludge, solid, or contained gas. If the waste is not listed in Sections R315-261-30 through R315-261-35, the description also shall include the process that produced it, for example, solid filter cake from production of ----, EPA Hazardous Waste Number W051.

(i) Each hazardous waste listed in Sections R315-261-30 through R315-261-35, and each hazardous waste characteristic defined in Sections R315-261-20 through R315-261-24, has a four-digit EPA Hazardous Waste Number assigned to it. This number shall be used for recordkeeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description shall include [~~all~~]the applicable EPA Hazardous Waste Numbers.

(2) The estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1[~~;~~].

Table 1	
Unit of Measure	Code[1]
Gallons	G
Gallons per Hour	E
Gallons per Day	U
Liters	L
Liters per Hour	H
Liters per Day	V
Short Tons per Hour	D
Metric Tons per Hour	W
Short Tons per Day	N
Metric Tons per Day	S
Pounds per Hour	J
Kilograms per Hour	R
Cubic Yards	Y
Cubic Meters	C
Acres	B
Acre-feet	A
Hectares	Q
Hectare-meter	F
Btu's per Hour	I
Pounds	P
Short tons	T
Kilograms	K
Tons	M
[1] Single digit symbols are used here for data processing purposes.	

[~~Table 1~~

~~Unit of measure Code(1)~~

~~Gallons G~~
~~Gallons per Hour E~~
~~Gallons per Day U~~
~~Liters L~~
~~Liters per Hour H~~
~~Liters per Day V~~
~~Short Tons per Hour D~~
~~Metric Tons per Hour W~~
~~Short Tons per Day N~~
~~Metric Tons per Day S~~
~~Pounds per Hour J~~
~~Kilograms per Hour R~~
~~Cubic Yards Y~~
~~Cubic Meters C~~
~~Acres B~~
~~Acre-feet A~~
~~Hectares Q~~
~~Hectare-meter F~~

~~Btu's per Hour I~~
~~Pounds P~~
~~Short tons T~~
~~Kilograms K~~
~~Tons M~~

~~(1) Single digit symbols are used here for data processing purposes.~~
]

(3) The method[~~(s)~~]s, by handling code[~~(s)~~]s as specified in Table 2, and date[~~(s)~~]s of treatment, storage, or disposal.

Table 2 Handling Codes for Treatment, Storage, and Disposal Methods	
Enter the handling code or codes listed in this table that most closely represent the technique or techniques used at the facility to treat, store, or dispose of each quantity of hazardous waste received.	
1. Storage	
Code	Storage Type
S01	Container (example barrel or drum)
S02	Tank
S03	Waste Pile
S04	Surface Impoundment
S05	Drip Pad
S06	Containment Building (Storage)
S99	Other Storage (specify)
2. Treatment	
(a) Thermal Treatment	
Code	Type of Thermal Treatment
T06	Liquid injection incinerator
T07	Rotary kiln incinerator
T08	Fluidized bed incinerator
T09	Multiple hearth incinerator
T10	Infrared furnace incinerator
T11	Molten salt destructor
T12	Pyrolysis
T13	Wet air oxidation
T14	Calcination
T15	Microwave discharge
T18	Other (specify)
(b) Chemical Treatment	
Code	Type of Chemical Treatment
T19	Absorption mound
T20	Absorption field
T21	Chemical fixation
T22	Chemical oxidation
T23	Chemical precipitation
T24	Chemical reduction
T25	Chlorination
T26	Chlorinolysis
T27	Cyanide destruction
T28	Degradation
T29	Detoxification
T30	Ion exchange
T31	Neutralization
T32	Ozonation
T33	Photolysis
T34	Other (specify)
(c) Physical Treatment	
(1) Separation of components	
Code	Type of Separation Treatment
T35	Centrifugation
T36	Clarification

T37	Coagulation
T38	Decanting
T39	Encapsulation
T40	Filtration
T41	Flocculation
T42	Flotation
T43	Foaming
T44	Sedimentation
T45	Thickening
T46	Ultrafiltration
T47	Other (specify)
(2) Removal of Specific Components	
Code	Type of Removal Treatment
T48	Absorption-molecular sieve
T49	Activated carbon
T50	Blending
T51	Catalysis
T52	Crystallization
T53	Dialysis
T54	Distillation
T55	Electrodialysis
T56	Electrolysis
T57	Evaporation
T58	High gradient magnetic separation
T59	Leaching
T60	Liquid ion exchange
T61	Liquid-liquid extraction
T62	Reverse osmosis
T63	Solvent recovery
T64	Stripping
T65	Sand filter
T66	Other (specify)
(d) Biological Treatment	
Code	Type of Biological Treatment
T67	Activated sludge
T68	Aerobic lagoon
T69	Aerobic tank
T70	Anaerobic tank
T71	Composting
T72	Septic tank
T73	Spray irrigation
T74	Thickening filter
T75	Trickling filter
T76	Waste stabilization pond
T77	Other (specify)
T78-T79	Reserved
(e) Boilers and Industrial Furnaces	
Code	Type of Boiler or Industrial Furnace
T80	Boiler
T81	Cement Kiln
T82	Lime Kiln
T83	Aggregate Kiln
T84	Phosphate Kiln
T85	Coke Oven
T86	Blast Furnace
T87	Smelting, Melting, or Refining Furnace
T88	Titanium Dioxide Chloride Process Oxidation Reactor
T89	Methane Reforming Furnace

T90	Pulping Liquor Recovery Furnace
T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid
T92	Halogen Acid Furnaces
T93	Other Industrial Furnaces Listed in Section R315-260-10 (specify)
(f) Other Treatment	
Code	Other Type of Treatment
T94	Containment Building (Treatment)
(3) Disposal	
Code	Type of Disposal
D79	Underground Injection
D80	Landfill
D81	Land Treatment
D82	Ocean Disposal
D83	Surface Impoundment (to be closed as a landfill)
D99	Other Disposal (specify)
(4) Miscellaneous (Subpart X)	
Code	Type of Unit
X01	Open Burning Open Detonation
X02	Mechanical Processing
X03	Thermal Unit
X04	Geologic Repository
X99	Other Subpart X (specify)

~~[Table 2~~

~~Handling Codes for Treatment, Storage and Disposal Methods~~

~~Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store or dispose of each quantity of hazardous waste received.~~

~~For Storage~~

~~Code Storage type~~
~~S01 Container (barrel, drum, etc.)~~
~~S02 Tank~~
~~S03 Waste Pile~~
~~S04 Surface Impoundment~~
~~S05 Drip Pad~~
~~S06 Containment Building (Storage)~~
~~S99 Other Storage (specify)~~

~~For Treatment~~

~~(a) Thermal Treatment~~
~~Code Type of Thermal Treatment~~
~~T06 Liquid injection incinerator~~
~~T07 Rotary kiln incinerator~~
~~T08 Fluidized bed incinerator~~
~~T09 Multiple hearth incinerator~~
~~T10 Infrared furnace incinerator~~
~~T11 Molten salt destructor~~
~~T12 Pyrolysis~~
~~T13 Wet air oxidation~~
~~T14 CalcinationT15 Microwave discharge~~
~~T18 Other (specify)~~

~~(b) Chemical Treatment~~
~~Code Type of Chemical Treatment~~
~~T19 Absorption mound~~
~~T20 Absorption field~~
~~T21 Chemical fixation~~
~~T22 Chemical oxidation~~
~~T23 Chemical precipitation~~
~~T24 Chemical reduction~~
~~T25 Chlorination~~
~~T26 Chlorinolysis~~
~~T27 Cyanide destruction~~
~~T28 Degradation~~

~~T29 Detoxification~~
~~T30 Ion exchange~~
~~T31 Neutralization~~
~~T32 Ozonation~~
~~T33 Photolysis~~
~~T34 Other (specify)~~

~~(c) Physical Treatment~~
~~(1) Separation of components:~~
~~Code Type of Separation treatmen~~
~~T35 Centrifugation~~
~~T36 Clarification~~
~~T37 Coagulation~~
~~T38 Decanting~~
~~T39 Encapsulation~~
~~T40 Filtration~~
~~T41 Flocculation~~
~~T42 Flotation~~
~~T43 Foaming~~
~~T44 Sedimentation~~
~~T45 Thickening~~
~~T46 Ultrafiltration~~
~~T47 Other (specify)~~

~~(2) Removal of Specific Components:~~
~~Code Type of Removal Treatment~~
~~T48 Absorption molecular sieve~~
~~T49 Activated carbon~~
~~T50 Blending~~
~~T51 Catalysis~~
~~T52 Crystallization~~
~~T53 Dialysis~~
~~T54 Distillation~~
~~T55 Electrodialysis~~
~~T56 Electrolysis~~
~~T57 Evaporation~~
~~T58 High gradient magnetic separation~~
~~T59 Leaching~~
~~T60 Liquid ion exchange~~
~~T61 Liquid liquid extraction~~
~~T62 Reverse osmosis~~
~~T63 Solvent recovery~~
~~T64 Stripping~~
~~T65 Sand filter~~
~~T66 Other (specify)~~

~~(d) Biological Treatment~~
~~Code Type of Biological Treatment~~
~~T67 Activated sludge~~
~~T68 Aerobic lagoon~~
~~T69 Aerobic tank~~
~~T70 Anaerobic tank~~
~~T71 Composting~~
~~T72 Septic tank~~
~~T73 Spray irrigation~~
~~T74 Thickening filter~~
~~T75 Trickling filter~~
~~T76 Waste stabilization pond~~
~~T77 Other (specify)~~

~~(e) Boilers and Industrial Furnaces~~
~~Code Type of Boiler or Industrial Furnace~~
~~T80 BoilerT81 Cement Kiln~~
~~T82 Lime Kiln~~
~~T83 Aggregate Kiln~~
~~T84 Phosphate Kiln~~
~~T85 Coke Oven~~
~~T86 Blast Furnace~~
~~T87 Smelting, Melting, or Refining Furnace~~
~~T88 Titanium Dioxide Chloride Process Oxidation Reactor~~
~~T89 Methane Reforming Furnace~~
~~T90 Pulping Liquor Recovery Furnace~~
~~T91 Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid~~
~~T92 Halogen Acid Furnaces~~
~~T93 Other Industrial Furnaces Listed in Section R315-260.10 (specify)~~

~~(f) Other Treatment~~
~~Code Other type of Treatment~~
~~T94 Containment Building (Treatment)~~

~~For Disposal~~
~~Code Type of Disposal~~
~~D79 Underground Injection~~
~~D80 Landfill~~
~~D81 Land Treatment~~
~~D82 Ocean Disposal~~
~~D83 Surface Impoundment (to be closed as a landfill)~~
~~D99 Other Disposal (specify)~~

~~For Miscellaneous Sections R315-264-600 through 603 Units~~
~~Code Unit type~~
~~X01 Open Burning/Open Detonation~~
~~X02 Mechanical Processing~~
~~X03 Thermal Unit~~
~~X04 Geologic Repository~~
~~X99 Other Sections R315-264-600 through 603 Units~~
~~(specify)~~
]

R315-264-[~~1104~~]1404. Appendix IV to Rule R315-264 - Cochran's Approximation to the Behrens-Fisher Students' t-test.

40 CFR 264 Appendix IV, 2015 edition, is [~~adopted and~~]incorporated by reference.

R315-264-[~~1105~~]1405. Appendix V to Rule R315-264 -- Examples of Potentially Incompatible Waste.

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects that[~~which~~] are harmful to human health and the environment, such as (1) heat or pressure, (2) fire or explosion, (3) violent reaction, (4) toxic dusts, mists, fumes, or gases, or (5) flammable fumes or gases.

[~~Below~~]Section R315-264-1405 lists [~~are~~]examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences [~~which~~]that result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to [~~indicate~~]show the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator shall, as the [~~regulations~~]rules require, adequately analyze the owner or operator's[~~his~~] wastes so that [~~he~~]the owner or operator can avoid creating uncontrolled substances or reactions[~~ of the type listed below~~], whether they are listed [~~below~~]or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction, [~~e.g.,~~]for example adding acid to water rather than water to acid, or that neutralizes them, [~~e.g.,~~]for example a strong acid mixed with a strong base, or that controls substances produced, [~~e.g.,~~]for example by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator.

In the lists[~~ below~~], the mixing of a Group A material with a Group B material may have the potential [~~consequence~~]result as noted.

Table 3
Group 1-A
Acetylene sludge
Alkaline caustic liquids
Alkaline cleaner
Alkaline corrosive liquids
Alkaline corrosive battery fluid
Caustic wastewater
Lime sludge and other corrosive alkalies
Lime wastewater
Lime and water
Spent caustic
Group 1-B
Acid sludge
Acid and water
Battery acid
Chemical cleaners
Electrolyte, acid
Etching acid liquid or solvent
Pickling liquor and other corrosive acids
Spent acid
Spent mixed acid

Spent sulfuric acid
Potential result: Heat generation; violent reaction.
Group 2-A
Aluminum
Beryllium
Calcium
Lithium
Magnesium
Potassium
Sodium
Zinc powder
Other reactive metals and metal hydrides
Group 2-B
Any waste in Group 1-A or 1 -B
Potential result: Fire or explosion; generation of flammable hydrogen gas.
Group 3-A
Alcohols
Water
Group 3-B
Any concentrated waste in Groups 1-A or 1-B
Calcium
Lithium
Metal hydrides
Potassium
SO_2 Cl_2, $SOCl_2$, PCl_3, CH_3 $SiCl_3$
Other water-reactive waste
Potential result: Fire, explosion, or heat generation; generation of flammable or toxic gases.
Group 4-A
Alcohols
Aldehydes
Halogenated hydrocarbons
Nitrated hydrocarbons
Unsaturated hydrocarbons
Other reactive organic compounds and solvents
Group 4-B
Concentrated Group 1-A or 1-B wastes
Group 2-A wastes
Potential result: Fire, explosion, or violent reaction.
Group 5-A
Spent cyanide and sulfide solutions
Group 5-B
Group 1-B wastes
Potential result: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.
Group 6-A
Chlorates
Chlorine
Chlorites

Chromic acid
Hypochlorites
Nitrates
Nitric acid, fuming
Perchlorates
Permanganates
Peroxides
Other strong oxidizers
Group 6-B
Acetic acid and other organic acids
Concentrated mineral acids
Group 2-A wastes
Group 4-A wastes
Other flammable and combustible wastes
Potential result: Fire, explosion, or violent reaction.
Source: "Law, Regulations, and Guidelines for Handling of Hazardous Waste." California Department of Health, February 1975.

[~~Table~~

~~Group 1-A~~

~~Acetylene sludge~~
~~Alkaline caustic liquids~~
~~Alkaline cleaner~~
~~Alkaline corrosive liquids~~
~~Alkaline corrosive battery fluid~~
~~Caustic wastewater~~
~~Lime sludge and other corrosive alkalies~~
~~Lime wastewaterLime and water~~
~~Spent caustic~~

~~Group 1-B~~

~~Acid sludge~~
~~Acid and water~~
~~Battery acid~~
~~Chemical cleaners~~
~~Electrolyte, acid~~
~~Etching acid liquid or solvent~~
~~Pickling liquor and other corrosive acids~~
~~Spent acid~~
~~Spent mixed acid~~
~~Spent sulfuric acid~~
~~Potential consequences: Heat generation; violent reaction.~~

~~Group 2-A~~

~~Aluminum~~
~~Beryllium~~
~~Calcium~~
~~Lithium~~
~~Magnesium~~
~~Potassium~~
~~Sodium~~
~~Zinc powder~~
~~Other reactive metals and metal hydrides~~

~~Group 2-B~~

~~Any waste in Group 1-A or~~
~~1-B~~
~~Potential consequences: Fire or explosion; generation of flammable~~
~~hydrogen gas.~~

~~Group 3-A~~

~~Alcohols~~

~~Water~~

~~Group 3-B~~

~~Any concentrated waste in Groups 1-A or 1-B~~
~~Calcium~~
~~Lithium~~
~~Metal hydrides~~
~~Potassium~~
~~SO2 Cl2, SOCl2, PCl3, CH3 SiCl3~~
~~Other water-reactive waste~~
~~Potential consequences: Fire, explosion, or heat generation;~~
~~generation of flammable or toxic gases.~~

~~Group 4-A~~

~~Alcohols~~
~~Aldehydes~~
~~Halogenated hydrocarbons~~
~~Nitrated hydrocarbons~~
~~Unsaturated hydrocarbons~~
~~Other reactive organic compounds and solvents~~

~~Group 4-B~~

~~Concentrated Group 1-A or 1-B wastes~~
~~Group 2-A wastes~~
~~Potential consequences: Fire, explosion, or violent reaction.~~

~~Group 5-A~~

~~Spent cyanide and sulfide solutions~~

~~Group 5-B~~

~~Group 1-B wastes~~
~~Potential consequences: Generation of toxic hydrogen cyanide or~~
~~hydrogen sulfide gas.~~

~~Group 6-A~~

~~Chlorates~~
~~Chlorine~~
~~Chlorites~~
~~Chromic acid~~
~~Hypochlorites~~
~~Nitrates~~
~~Nitric acid, fuming~~
~~Perchlorates~~
~~Permanganates~~
~~Peroxides~~
~~Other strong oxidizers~~

~~Group 6-B~~

~~Acetic acid and other organic acids~~
~~Concentrated mineral acids~~
~~Group 2-A wastes~~
~~Group 4-A wastes~~
~~Other flammable and combustible wastes~~
~~Potential consequences: Fire, explosion, or violent reaction.~~
~~Source: "Law, Regulations, and Guidelines for Handling of Hazardous~~
~~Waste." California Department of Health, February 1975.~~

~~(1) These include counties, city-county consolidations, and~~
~~independent cities. In the case of Alaska, the political~~
~~jurisdictions are election districts, and, in the case of Hawaii,~~
~~the political jurisdiction listed is the island of Hawaii.~~
]

R315-264-[~~1106~~]1406. Appendix VI to Rule R315-264 -- Political Jurisdictions within Utah in Which Compliance With Subsection R315-264-18(a) Shall Be Demonstrated.

Beaver
Box Elder
Cache
Carbon
Daggett

Davis
Duchesne
Emery
Garfield
Grand
Iron
Juab
Kane
Millard
Morgan
Piute
Rich
Salt Lake
San Juan
Sanpete
Sevier
Summit
Tooele
Uintah
Utah
Wasatch
Washington
Wayne
Weber

R315-264-[~~1107~~]1409. Appendix IX to Rule R315-264 -- Ground[-]Water Monitoring List.
40 CFR 264 Appendix IX, 2015 edition, is [~~adopted and~~]incorporated by reference.

KEY: hazardous waste, TSD facilities
Date of Last Change: [~~May 16,~~] 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-265**	**Filing ID: 57497**

Agency Information

1. Title catchline:	Environmental Quality, Waste Management and Radiation Control, Waste Management	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, UT 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:
R315-265. Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

4. Purpose of the new rule or reason for the change:

In February of 1997, the EPA finalized a rulemaking known as the Military Munitions Rule. Authorized states were not required to adopt this rule because it was considered less stringent than existing regulations. At that time, Utah adopted a few of the rules.

In July of 2023, comments were received from the EPA that Utah should adopt more of the regulations promulgated in the Military Munitions Rule because Utah had begun to regulate military facilities in ways that appeared to be consistent with these regulations. Utah then conducted a review of the proposed regulations in the Military Munitions Rule and it was determined that some, but not all, of the proposed rules should be adopted resulting in an amendment to Rule R315-265.

In July of 2024, the EPA finalized rulemaking that integrates e-Manifest with hazardous waste imports and exports and other manifest related reports, PCB manifest amendments, and technical corrections. This rulemaking amended federal regulations found in 40 CFR 265.

In December of 2024, the EPA finalized five regulatory amendments that had been withdrawn from a rulemaking in December of 2023. The amendments made technical corrections to various hazardous waste regulations including some in 40 CFR 265.

As an authorized state, Utah is required to maintain a program that is equivalent to the federal program and therefore, must amend Rule R315-265 to conform with the federal regulations.

5. Summary of the new rule or change:

Subsection R315-265-1(f) is being added to the rule to add language stating that the Section R315-266-205 identifies when Rule R315-265 applies to the storage of military munitions classified as hazardous waste.

The rule also states that treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards of Rules R315-260 through R315-270.

Subsections R315-265-12(a)(2) and (4) are being amended to update the requirements for management of movement documents for the tracking of import and export of hazardous waste.

Subsection R315-265-71(a)(2) is being amended to remove manifest requirements that are outdated.

Subsection R315-265-71(a)(3) is being amended to update and clarify the information required to be listed on a hazardous waste manifest for imports and exports of hazardous waste.

Subsections R315-265-71(b)(4) and (d) are being amended to update the requirements for management of manifests and movement documents for the tracking of import and export of hazardous waste.

Subsection R315-265-71(l) is being added to provide the requirements for post-receipt manifest data corrections.

Subsection R315-265-72(c) is being amended to add the requirement to submit discrepancy reports via the e-Manifest system beginning on 12/01/2025, and to provide an additional 5 days for submission increasing the number of days from 15 to 20.

Subsection R315-265-72(g) is being amended to remove the requirement for facilities to send an amended manifest to a transporter and to state that transporters can access a copy of the amended manifest in the e-Manifest system.

Subsection R315-265-76(a) is being amended to provide the requirements for electronic submission of unmanifested waste reports via the e-Manifest system beginning on December 1, 2025.

Sections R315-265-1200 and R315-265-1202 are being added to provide requirements for the storage of munitions and explosives hazardous waste.

Additionally, the Division of Waste Management and Radiation Control, Waste Management (Division) is correcting typographical and formatting errors in Rule R315-265.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

It is not anticipated that this rulemaking will result in any cost or savings to the state budget because the state does not manage military munitions and is not an importer or exporter of hazardous waste.

B. Local governments:

It is not anticipated that this rulemaking will result in any cost or savings to local governments because there are no local governments in Utah that manage military munitions or import or export hazardous waste.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

It is not anticipated that the rulemaking regarding military munitions or import and export of hazardous waste will result in any cost or savings to small businesses that must comply with this rule because there are no small businesses in Utah engaged in these activities.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

There are three non-small businesses in Utah that are importers of hazardous waste. It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

It is not anticipated that the rulemaking regarding military munitions or import and export of hazardous waste will result in any cost or savings to persons other than small businesses, non-small businesses, state or local governments that must comply with this rule because there are no persons other than small businesses, non-small businesses, state or local governments in Utah engaged in these activities.

F. Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs above those costs that are already in place for affected persons who must comply with this rule except for the cost to the three non-small businesses in Utah that are importers of hazardous waste.

It is estimated that the amendments to the rules regarding the import and export of hazardous waste could cost these businesses approximately $3,744 annually.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$3,744	$3,744	$3,744	$3,744	$3,744
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$3,744**	**$3,744**	**$3,744**	**$3,744**	**$3,744**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**

Net Fiscal Benefits	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**	**$(3,744)**
H. Department head comments on fiscal impact and approval of regulatory impact analysis:					
The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.					

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:		
Section 19-6-105	Section 19-6-106	

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.	
A. Comments will be accepted until:	10/31/2025

10. This rule change MAY become effective on:	11/17/2025
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	09/12/2025

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-265. Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
R315-265-1. Incorporation, General -- Purpose, Scope, and Applicability.

40 CFR 265.270 through 265.282, 265.370 through 265.383, 265.400 through 265.406, 265.430, 265.1200 through 265.1202, 265.1300 through 265.1316 and Appendices I and III through IV and VI of 40 CFR 265, 2024 edition, are incorporated by reference except that "director" is substituted for references to "Regional Administrator", and for references to "EPA" or "Environmental Protection Agency" except for references to "EPA identification number" and when EPA is used in reference to actions under Subsection R315-268-42(b) and in Subsection R315-265-71(a)(3).

(a) The purpose of Rule R315-265 is to establish minimum standards that define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

(b) Except as provided in Subsection R315-265-1080(b), the standards of Rule R315-265, and of Sections R315-264-552, R315-264-553, and R315-264-554, apply to owners and operators of facilities that treat, store or dispose of hazardous waste who have fully complied with the requirements for interim status under Section 3005(e) of RCRA and Section R315-270-10 until either a permit is issued under Rule R315-270 or until applicable Rule R315-265 closure and post-closure responsibilities are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980 who have failed to provide timely notification as required by Section 3010(a) of RCRA, failed to file Part A of the permit application as required by Subsections R315-270-10(e) and R315-270-10(g), or both. These standards apply to treatment, storage, and disposal of hazardous waste at these facilities after the effective date of Title R315, except as specifically provided otherwise in Rule R315-265 or Rule R315-261.

(1) As stated in Section 3005(a) of RCRA, after the effective date of regulations under that section, which are Rules R315-270 and R315-124, the treatment, storage, and disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility that meets certain conditions, until final administrative disposition of the owner's and operator's permit application is made.

(c) The requirements of Rule R315-265 do not apply to [~~the following~~]Subsections R315-265-1(c)(1) through R315-265-1(c)(16):

(1) A person disposing of hazardous waste by ocean disposal subject to a permit issued under the Marine Protection, Research, and Sanctuaries Act.

(i) Rule R315-265 does apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea, as provided in Subsection R315-265-1(b).

(2) Reserved.

(3) The owner or operator of a POTW that treats, stores, or disposes of hazardous waste.

(i) The owner or operator of a facility under Subsections R315-265-1(c)(1) through R315-265-1(c)(3) is subject to the requirements of Rule R315-264 to the extent they are included in a permit by rule granted to the owner or operator under 40 CFR 122, or are required by 40 CFR 144.14.

(4) Reserved.

(5) The owner or operator of a facility permitted under Rules R315-301 through R315-320 to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under Rule R315-265 by Section R315-262-14.

(6) The owner or operator of a facility managing recyclable materials described in Subsections R315-261-6(a)(2), R315-261-6(a)(3), and R315-261-6(a)(4), except to the extent they are referred to in Rule R315-15 or Sections R315-266-20 through R315-266-23, R315-266-70, R315-266-80, or R315-266-100 through R315-266-112.

(7) A generator accumulating waste on-site in compliance with applicable conditions for exemption in Sections R315-262-14 through R315-262-17 and Sections R315-262-200 through R315-262-216 and Sections R315-262-230 through R315-262-233, except to the extent the requirements of Rule R315-265 are included in those [~~sections~~]Sections R315-262-14 through R315-262-17 and Sections R315-262-200 through R315-262-216 and Sections R315-262-230 through R315-262-233.

(8) A farmer disposing of waste pesticides from the farmer's own use in compliance with Section R315-262-70.

(9) The owner or operator of a totally enclosed treatment facility, as defined in Section R315-260-10.

(10) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in Section R315-260-10, except that if the owner or operator is diluting hazardous ignitable (D001) wastes, other than the D001 High TOC Subcategory defined in the Treatment Standards for Hazardous Waste table in Section R315-268-40, [~~Table Treatment Standards for Hazardous Wastes,~~]or reactive (D003) waste, to remove the characteristic before land disposal, the owner or operator shall comply with the requirements set out in Subsection R315-265-17(b).

(11)(i) Except as provided in Subsection R315-265-1(c)(11)(ii), a person engaged in treatment or containment activities during immediate response to any of the [~~following~~]situations listed in Subsections R315-265-1(c)(11)(i)(A) through R315-265-1(c)(11)(i)(C):

(A) a discharge of a hazardous waste;

(B) an imminent and substantial threat of a discharge of a hazardous waste; or

(C) a discharge of a material that, if discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by this Rule R315-265 shall comply with the applicable requirements of Sections R315-265-30 through R315-265-37 and Sections R315-265-50 through R315-265-56.

(iii) Any person who is covered by Subsection R315-265-1(c)(11)(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to the applicable requirements of Rule R315-265 and Rule R315-124 for those activities.

(iv) In the case of an explosives or munitions emergency response, if a federal, state, tribal or local official acting within the scope of their official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit shall keep records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(12) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.

(13) The addition of absorbent material to waste in a container, as defined in Section R315-260-10, or the addition of waste to the absorbent material in a container if these actions occur when waste is first placed in the containers, and Subsection R315-265-17(b) and Sections R315-265-171 and R315-265-172 are complied with.

(14) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, handling the wastes listed in Subsections R315-265-1(c)(14)(i) through R315-265-1(c)(14)(vi). These handlers are subject to regulation under Rule R315-273, if handling the [~~following~~]universal wastes listed in Subsections R315-265-1(c)(14)(i) through R315-265-1(c)(14)(vi):

(i) batteries as described in Section R315-273-2;

(ii) pesticides as described in Section R315-273-3;

(iii) mercury-containing equipment as described in Section R315-273-4;

(iv) lamps as described in Section R315-273-5;

(v) aerosol cans as described in Section R315-273-6; and

(vi) antifreeze as described in Section R315-273-7.

(15) Reserved

(16) Reverse distributors accumulating potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals, as defined in Section R315-266-500. Reverse distributors are subject to regulation under Sections R315-266-500 through R315-266-510 in lieu of Rule R315-265 for the accumulation of potentially creditable hazardous waste pharmaceuticals and evaluated hazardous waste pharmaceuticals.

(d) The [~~following~~]hazardous wastes listed in Subsection R315-265-1(d)(1) may not be managed at facilities subject to regulation under Rule R315-265.

(1) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027 unless:

(i) the wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

(ii) the waste is stored in tanks or containers;

(iii) the waste is stored or treated in waste piles that meet the requirements of Subsection R315-264-250(c) as well as other applicable requirements of Sections R315-265-250 through R315-265-260;

(iv) the waste is burned in incinerators that are certified pursuant to the standards and procedures in Section R315-265-352; or

(v) the waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in 40 CFR 265.383, which is incorporated by reference.

(e) The requirements of Rule R315-265 apply to owners or operators of facilities that treat, store or dispose of hazardous waste referred to in Rule R315-268, and the Rule R315-268 standards are considered material conditions or requirements of the Rule R315-265 interim status standards.

(f) Section R315-266-205 identifies when the requirements of Rule R315-265 apply to the storage of military munitions classified as solid waste in accordance with Section R315-266-202. The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in Rules R315-260 through R315-270.

R315-265-12. General Facility Standards -- Required Notices.

(a) The owner or operator of a facility that is arranging or has arranged to receive hazardous waste subject to Sections R315-262-80 through R315-262-84 from a foreign source shall submit the [~~following required~~]notices required by Subsections R315-265-12(a)(1) through R315-265-12(a)(4):

(1) As per Subsection R315-262-84(b), for imports where the competent authority of the country of export does not require the foreign exporter to submit to it a notification proposing export and get consent from EPA and the competent authorities for the countries of transit, the owner or operator of the facility, if acting as the importer, shall provide notification of the proposed transboundary movement in English to EPA using the allowable methods listed in Subsection R315-262-84(b)(1) at least 60 days before the first shipment is expected to depart the country of export. The notification may cover up to one year of shipments of wastes having similar physical and chemical characteristics, the identical United Nations classification, the identical RCRA waste codes and OECD waste codes, and being sent from the same foreign exporter.

(2) [~~As per~~]In accordance with Subsection R315-262-84(d)(2)(xv), a copy of the movement document bearing the required signatures within three working days of receipt of the shipment to the foreign exporter[~~,~~] and to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively.[~~, and~~] For shipments received on or after the electronic import[~~-~~] export reporting compliance date, the receiving facility must close out the movement document to [~~EPA electronically~~]confirm receipt within three working days of shipment delivery using the EPA's Waste Import Export Tracking System (WIETS), or its successor system. For shipments sent from a country with which the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use WIETS or its successor system to send movement document confirmation data back through the electronic exchange to the foreign exporter and the country of export. The original of the signed movement document shall be maintained at the facility for at least three years. The owner or operator of a facility may satisfy this recordkeeping requirement by keeping electronically submitted documents in the facility's account on EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, provided that copies [~~shall be~~]are readily available for viewing and production if requested by any EPA or Utah inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under [~~this s~~]Section R315-265-12 if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, for which the owner or operator of a facility bears no responsibility.

(3) As per Subsection R315-262-84(f)(4), if the facility has physical control of the waste and it must be sent to an alternate facility or returned to the country of export, the owner or operator of the facility shall inform EPA, using the allowable methods listed in Subsection R315-262-84(b)(1) of the need to return or arrange alternate management of the shipment.

(4) As per Subsection R315-262-84(g), the owner or operator shall:

(i) Send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import[~~-~~] export reporting compliance date, to EPA electronically using EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~),~~] or its successor system. For shipments sent from a country with which the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use WIETS or its successor system to send confirmation of recovery or disposal data back through the electronic exchange to the foreign exporter and the country of export.

(ii) If the facility performed any of recovery operations R12, R13, or RC3, or disposal operations D13 through D15, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or RC1, or one of disposal operations D1 through D12, or DC1 to DC2, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import[~~-~~] export reporting compliance date, to the EPA electronically using EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~),~~] or its successor system. The recovery and disposal operations in Subsection R315-265-12(a)(4)(ii) are defined in Section R315-262-81. For shipments sent from a country with which the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use EPA's WIETS or its successor system to send confirmation of recovery or disposal data back through the electronic exchange to the country of export.

(b) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator shall notify the new owner or operator in writing of the requirements of Rule R315-265 and Rule R315-270. Also see Section R315-270-72.

(i) An owner's or operator's failure to notify the new owner or operator of the requirements of Rule R315-265 in no way relieves the new owner or operator of their obligation to comply with the applicable requirements.

R315-265-71. Manifest System, Recordkeeping, and Reporting -- Use of Manifest System.

(a)(1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator or the owner or operator's agent shall sign and date the manifest as indicated in Subsection R315-265-71(a)(2) to certify that the hazardous waste covered by the manifest was

received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.

(2) If the facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator, or the owner or operator's agent shall:

(i) sign and date, by hand, each copy of the manifest;

(ii) note any discrepancies, as defined in Subsection R315-265-72(a), on each copy of the manifest;

(iii) immediately give the transporter at least one copy of the manifest;

(iv) [~~within 30 days of delivery, send a copy, Page 2, of the manifest to the generator;~~]Reserved;

(v) paper manifest submission requirements are:

(A) [~~Options for compliance on June 30, 2018. Beginning on June 30, 2018, send the top copy, Page 1, of any paper manifest and any paper continuation sheet to the e-Manifest system for data entry and processing, or in lieu of submitting the paper copy to EPA, the owner or operator may transmit to the EPA system an image file of Page 1 of the manifest and any continuation sheet, or both a data file and image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery. Submissions of copies to the e-Manifest system shall be made at the mailing address or electronic mail or submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, EPA will not accept mailed paper manifests from facilities for processing in e-Manifest.~~]Reserved.

(B) Options for compliance on June 30, 2021. [~~Beginning on June 30, 2021, the requirement to submit~~]Send to the EPA e-Manifest system an image file of the top copy, Page1, of the [~~paper~~]manifest and any [~~paper~~]continuation sheet [~~to the e-Manifest system for data entry and processing may be met by the owner or operator only by transmitting~~]send to the EPA e-Manifest system an image file of Page 1 of the manifest and any continuation sheet, or by transmitting to the EPA system both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days of the date of delivery[~~. Submissions of copies to the e-Manifest system shall be made to the electronic mail or submission address specified at the e-Manifest program website's directory of services~~]; and

(vi) keep at the facility a copy of each manifest for at least three years from the date of delivery.

(3) The owner or operator of a facility that receives hazardous waste subject to Sections R315-262-80 through R315-265-84 from a foreign source shall:

(i) additionally, list the relevant waste stream consent number from consent documentation supplied by EPA to the facility for each waste listed on the manifest in the International Shipments block on the continuation sheet, EPA Form 8700-22A, matched to the relevant list number for the waste from block 9b. If additional space is needed, the owner or operator should use a continuation sheet or sheets, EPA Form 8700-22A; and

(ii) send a copy of the manifest to the EPA[~~using the addresses listed in Subsection R315-262-82(e) within 30 days of delivery until the facility can submit a copy to the~~] e-Manifest system per Subsection R315-265-71(a)(2)(v).

(b) If a facility receives, from a rail or water, bulk shipment, transporter, hazardous waste that is accompanied by a shipping paper containing the information required on the manifest, excluding the EPA identification numbers, generator's certification, and signatures, the owner or operator, or the owner or operator's agent, shall:

(1) sign and date each copy of the manifest or shipping paper, if the manifest has not been received, to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) note any significant discrepancies, as defined in Subsection R315-265-72(a), in the manifest or shipping paper, if the manifest has not been received, on each copy of the manifest or shipping paper;

(i) The director does not intend that the owner or operator of a facility whose procedures under Subsection R315-265-13(c) include waste analysis shall perform that analysis before signing the shipping paper and giving it to the transporter. Subsection R315-265-72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

(3) immediately give the rail or water, bulk shipment, transporter at least one copy of the manifest or shipping paper, if the manifest has not been received;

(4) within 30 days after the delivery, send a copy, Page1, of the signed and dated manifest [~~or a signed and dated copy of the shipping paper, if the manifest has not been received within 30 days after delivery, to the generator; and~~]to the EPA e-Manifest system.

(i) Subsection R315-262-23(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water, bulk shipment.

(5) keep at the facility a copy of the manifest and shipping paper, if signed in lieu of the manifest when delivered, for at least three years from the date of delivery.

(c) When a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements of Rule R315-262. Sections R315-262-15, R315-262-16, and R315-262-17 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, Sections R315-262-15, R315-262-16, and R315-262-17 only apply to owners or operators who are shipping hazardous waste that they generated at that facility or operating as a large quantity generator consolidating hazardous waste from very small quantity generators under Subsection R315-262-17(f).

(d) [~~As per Subsection~~]In accordance with Subsection R315-262-84(d)(2)(xv), within three working days of the receipt of a shipment subject to Sections R315-262-80 through R315-262-84, the owner or operator of a facility shall provide a copy of the movement document bearing the required signatures to the foreign exporter[~~,~~] and to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste respectively[~~,~~]. [~~and~~]For shipments received on or after the electronic import[~~-~~] export reporting compliance date, the receiving facility must close out the movement document to [~~EPA electronically~~]confirm receipt within three working days of shipment delivery using EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~),~~] or its successor system. For shipments sent from a country with which the EPA has established an electronic exchange of movement document tracking data, the receiving facility may use EPA's WIETS or its successor system to send movement document confirmation data back through the electronic exchange to

the foreign exporter and the country of export. The original copy of the movement document shall be maintained at the facility for at least three years from the date of signature. The owner or operator of a facility may satisfy this recordkeeping requirement by keeping electronically submitted documents in the facility's account on EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, if the copies are readily available for viewing and production if requested by any EPA or Utah inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under [~~this s~~]Section R315-265-71 if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with EPA's [~~Waste Import Export Tracking System (~~]WIETS[~~)~~], or its successor system, for which the owner or operator of a facility bears no responsibility.

(e) A facility shall determine whether the consignment state for a shipment regulates any additional wastes, beyond those regulated federally, as hazardous wastes under its state hazardous waste program. Facilities shall also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to these states.

(f) Legal equivalence to paper manifests. Electronic manifests that are procured, finished, and transmitted in accordance with Subsection R315-262-20(a)(3), and used in accordance with [~~this~~]Section R315-265-71 in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy any requirement in Title R315 to get, finish, sign, provide, use, or keep a manifest.

(1) Any requirement in Rules R315-260 through R315-266, R315-268, R315-270, and R315-273 for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to get a handwritten signature, is satisfied by signing with or getting a valid and enforceable electronic signature within the meaning of Section R315-262-25.

(2) Any requirement in Title R315 to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied if a copy of an electronic manifest is transmitted to the other person.

(3) Any requirement in Title R315 for a manifest to accompany a hazardous waste shipment is satisfied if a copy of an electronic manifest is accessible during transportation and forwarded to the person who is scheduled to receive delivery of the hazardous waste shipment.

(4) Any requirement in Title R315 for an owner or operator to keep or keep a copy of each manifest is satisfied by the retention of the facility's electronic manifest copies in its account on the e-Manifest system, if the copies are readily available for viewing and production if requested by any EPA or Utah inspector.

(5) No owner or operator may be held liable for the inability to produce an electronic manifest for inspection under this Section R315-265-71 if the owner or operator can demonstrate that the inability to produce the electronic manifest is due exclusively to a technical difficulty with the EPA system, for which the owner or operator bears no responsibility.

(g) An owner or operator may participate in the electronic manifest system either by accessing the electronic manifest system from the owner's or operator's electronic equipment, or by accessing the electronic manifest system from portable equipment brought to the owner's or operator's site by the transporter who delivers the waste shipment to the facility.

(h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the [~~following~~]procedures listed in Subsections R315-265-71(h)(1) through R316-265-71(h)(4) apply to the delivery of the hazardous waste by the final transporter:

(1) Upon delivery of the hazardous waste to the designated facility, the owner or operator shall sign and date each copy of the paper replacement manifest by hand in Item 20, Designated Facility Certification of Receipt, and note any discrepancies in Item 18, Discrepancy Indication Space, of the replacement manifest.

(2) The owner or operator of the facility shall give back to the final transporter one copy of the paper replacement manifest.

(3) Within 30 days of delivery of the hazardous waste to the designated facility, the owner or operator of the facility shall send one signed and dated copy of the paper replacement manifest to the generator, and send an additional signed and dated copy of the paper replacement manifest to the EPA e-Manifest system.

(4) The owner or operator of the facility shall keep at the facility one copy of the paper replacement manifest for at least three years from the date of delivery.

(i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an electronic manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, then the owner or operator shall also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator shall keep this original copy among its records for at least three years from the date of delivery of the waste.

(j) Imposition of user fee for electronic manifest use.

(1) As prescribed in 40 CFR 265.1311, and determined in 40 CFR 265.1312, which are incorporated by reference, an owner or operator who is a user of the electronic manifest system shall be assessed a user fee by EPA for the submission and processing of each electronic and paper manifest. EPA shall update the schedule of user fees and publish them to the user community, as provided in 40 CFR 265.1313, which is incorporated by reference.

(2) An owner or operator subject to user fees under Section R315-265-71 shall make user fee payments in accordance with the requirements of 40 CFR 265.1314, subject to the informal fee dispute resolution process of 40 CFR 265.1316, and subject to the sanctions for delinquent payments under 40 CFR 265.1315, which are incorporated by reference.

(k) Electronic manifest signatures.

(1) Electronic manifest signatures shall meet the criteria described in Section R315-262-25.

(l) Post-receipt manifest data corrections. After facilities have certified [~~to~~]that the [~~receipt of hazardous wastes by signing Item 20 of the~~]manifest is complete by signing it when it is submitted to the EPA e-Manifest system, any post-receipt data corrections may be submitted at any time by any interested person, for example, waste handler, [~~shown~~]named on the manifest. If corrections are requested by the director

for portions of the manifest that a designated facility is required to complete, the facility must address the data correction within 30 days from the date of the request.

(1) Interested persons shall make each correction to manifest data by electronic submission, either by directly entering corrected data to the web based service provided in e-Manifest for corrections, or by an upload of a data file containing data corrections relating to one or more previously submitted manifests.

(2) Each correction submission shall include[~~ the following information~~]:

(i) the Manifest Tracking Number and date of receipt by the facility of the original manifest or manifests for which data are being corrected;

(ii) the Item Numbers of the original manifest that is the subject of the submitted corrections; and

(iii) for each Item Number with corrected data, the data previously entered and the corresponding data as corrected by the correction submission.

(3) Each correction submission shall include a statement that the person submitting the corrections certifies that to the best of their knowledge or belief, the corrections that are included in the submission will cause the information reported about the previously received hazardous wastes to be true, accurate, and complete.

(i) The certification statement shall be executed with a valid electronic signature; and

(ii) A batch upload of data corrections may be submitted under one certification statement.

(4) Upon receipt by the system of any correction submission, other interested persons shown on the manifest will be provided electronic notice of the submitter's corrections.

(5) Other interested persons shown on the manifest may respond to the submitter's corrections with comments to the submitter, or by submitting another correction to the system, certified by the respondent as specified in Subsection R315-265-71(l)(3), and with notice of the corrections to other interested persons shown on the manifest.

R315-265-72. Manifest System, Recordkeeping, and Reporting -- Manifest Discrepancies.

(a) Manifest discrepancies are:

(1) significant differences, as defined by Subsection R315-265-72(b), between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives;

(2) rejected wastes, which may be a full or partial shipment of hazardous waste that the TSDF cannot accept; or

(3) container residues, which are residues that exceed the quantity limits for "empty" containers set forth in Subsection R315-261-7(b) and Section R315-266-507.

(b) Significant differences in quantity are: For bulk waste, variations greater than 10% in weight; for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant differences in type are obvious differences that can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(c) Upon discovering a significant difference in quantity or type, the owner or operator shall try to reconcile the discrepancy with the waste generator or transporter, for example, with telephone conversations. If the discrepancy is not resolved within [~~15~~]20 days after receiving the waste, the owner or operator shall:[~~ immediately submit to the director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.~~]

(1) immediately submit to the director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

(2) Beginning on December 1, 2025, immediately submit a Discrepancy Report to the EPA e-Manifest system describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue. Beginning on December 1, 2025, the EPA will no longer accept mailed paper Discrepancy Reports from facilities.

(d)(1) Upon rejecting waste or identifying a container residue that exceeds the quantity limits for "empty" containers set forth in Subsection R315-261-7(b), the facility shall consult with the generator before forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative facility that can receive the waste, the facility may return the rejected waste or residue to the generator. The facility shall send the waste to the alternative facility or to the generator within 60 days of the rejection or the container residue identification.

(2) While the facility is making arrangements for forwarding rejected wastes or residues to another facility under this Section R315-265-72, it shall ensure that either the delivering transporter keeps custody of the waste, or the facility shall provide for secure, temporary custody of the waste, pending delivery of the waste to the first transporter designated on the manifest prepared under Subsection R315-265-72(e) or R315-265-72(f).

(e) Except as provided in Subsection R315-265-72(e)(7), for full or partial load rejections and residues that are to be sent off-site to an alternate facility, the facility shall prepare a new manifest in accordance with Subsection R315-262-20(a) and the [~~following~~]instructions contained in Subsections R315-265-72(e)(1) through R315-265-72(e)(7):

(1) Write the generator's [~~U.S.~~]US EPA ID number in Item 1 of the new manifest. Write the generator's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the generator's site address, then write the generator's site address in the designated space in Item 5.

(2) Write the name of the alternate designated facility and the facility's [~~U.S.~~]US EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and state that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, [~~U.S.~~]US DOT Description, of the new manifest and write the container types, quantity, and volumes of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked, and labeled and is in proper condition for transportation, and mail a signed copy of the manifest to the generator identified in Item 5 of the new manifest.

(7) For full load rejections that are made while the transporter remains present at the facility, the facility may forward the rejected shipment to the alternate facility by completing Item 18b of the original manifest and supplying the information on the next destination facility in the Alternate Facility space. The facility shall keep a copy of this manifest for its records, and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-265-72(e)(1), R315-265-72(e)(2), R315-265-72(e)(3), R315-265-72(e)(4), R315-265-72(e)(5), and R315-265-72(e)(6).

(f) Except as provided in Subsection R315-265-72(f)(7), for rejected wastes and residues that must be sent back to the generator, the facility shall prepare a new manifest in accordance with Subsection R315-262-20(a) and the[~~following~~] instructions contained in Subsections R315-265-72(f)(1) through R315-265-72(f)(8):

(1) Write the facility's [~~U.S.~~]US EPA ID number in Item 1 of the new manifest. Write the facility's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the facility's site address, then write the facility's site address in the designated space for Item 5 of the new manifest.

(2) Write the name of the initial generator and the generator's [~~U.S.~~]US EPA ID number in the designated facility block, Item 8, of the new manifest.

(3) Copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and state that the shipment is a residue or rejected waste from the previous shipment.

(4) Copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest, Item 18a.

(5) Write the DOT description for the rejected load or the residue in Item 9, [~~U.S.~~]US DOT Description, of the new manifest and write the container types, quantity, and volumes of waste.

(6) Sign the Generator's/Offeror's Certification to certify, as offeror of the shipment, that the waste has been properly packaged, marked, and labeled and is in proper condition for transportation.

(7) For full load rejections that are made while the transporter remains at the facility, the facility may return the shipment to the generator with the original manifest by completing Item 18a and 18b of the manifest and supplying the generator's information in the Alternate Facility space. The facility shall keep a copy for its records and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility shall use a new manifest and comply with Subsections R315-265-72(f)(1), R315-265-72(f)(2), R315-265-72(f)(3), R315-265-72(f)(4), R315-265-72(f)(5), R315-265-72(f)(6), and R315-265-72(f)(8).

(8) For full or partial load rejections and container residues contained in non-empty containers that are returned to the generator, the facility shall also comply with the exception reporting requirements in Subsection R315-262-42(a).

(g) If a facility rejects a waste or identifies a container residue that exceeds the quantity limits for "empty" containers set forth in Subsection R315-261-7(b) after it has signed, dated, and returned a copy of the manifest to the delivering transporter or to the generator, the facility shall amend its copy of the manifest to show the rejected wastes or residues in the discrepancy space of the amended manifest. The facility shall also copy the manifest tracking number from Item 4 of the new manifest to the discrepancy space of the amended manifest and shall re-sign and date the manifest to certify to the information as amended. The facility shall keep the amended manifest for at least three years from the date of amendment, and shall within 30 days, send a copy of the amended manifest to the transporter and generator that received copies before their being amended. Facilities are not required to send the amended manifest to any transporter who is registered in the EPA's e-Manifest system. Registered transporters may get the signed and dated copy of a completed manifest from the EPA e-Manifest system in lieu of receiving the manifest through US postal mail.

R315-265-76. Manifest System, Recordkeeping, and Reporting -- Unmanifested Waste Report.

(a) Beginning on December 1, 2025, i[~~I~~]f a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described by Subsection R315-263-20(e), and if the waste is not excluded from the manifest requirement by Rules R315-260 through R315-266, R315-268, R315-270 or R315-273, then the owner or operator shall prepare and submit a letter to the [~~D~~]director within [~~fifteen~~]15 days after receiving the waste. The unmanifested waste report shall contain[~~the following information~~]:

(1) [~~T~~]the EPA identification number, name and address of the facility;

(2) [~~T~~]the date the facility received the waste;

(3) [~~T~~]the EPA identification number, name and address of the generator and the transporter, if available;

(4) [~~A~~]a description and the quantity of each unmanifested hazardous waste the facility received;

(5) [~~T~~]the method of treatment, storage, or disposal for each hazardous waste;

(6) [~~T~~]the certification signed by the owner or operator of the facility or [~~his~~]the owner or operator's authorized representative; and

(7) [~~A~~]a brief explanation of why the waste was unmanifested, if known.

R315-265-178. Use and Management of Containers -- Air Emission Standards.

The owner or operator shall manage [~~all~~]any hazardous waste placed in a container in accordance with the applicable requirements of Sections R315-265-1030 through R315-265-1035, R315-265-1050 through R315-265-1064, and R315-265-1080 through R315-265-1090[~~subparts AA, BB, and CC of 40 CFR 265 which is adopted and incorporated by reference~~].

R315-265-231. Surface Impoundments -- Air Emission Standards.

The owner or operator shall manage [~~all~~]any hazardous waste placed in a surface impoundment in accordance with the applicable requirements of Sections R315-265-1050 through R315-265-1064 and R315-265-1080 through R315-265-1090[~~40 CFR 265 subparts BB and CC, which are adopted and incorporated by reference~~].

R315-265-1200. Hazardous Waste Munitions and Explosives Storage -- Applicability.

The requirements of Sections R315-265-1200 through R315-265-1202 apply to owners or operators who store munitions and explosive hazardous wastes, except as Section R315-265-1 provides otherwise. Depending on explosive hazards, hazardous waste munitions and explosives may also be managed in other types of storage units, including containment buildings, Sections R315-265-1100 through R315-265-1102, tanks, Sections R315-265-190 through R315-265-202, or containers, Sections R315-265-170 through R315-265-178. See Section R315-266-205 for storage of waste military munitions.

R315-265-1201. Hazardous Waste Munitions and Explosives Storage -- Design and Operating Standards.

(a) Hazardous waste munitions and explosives storage units shall be designed and operated with containment systems, controls, and monitoring, that:

(1) minimize the potential for detonation or other means of release of hazardous waste, hazardous constituents, hazardous decomposition products, or contaminated run-off, to the soil, ground water, surface water, and atmosphere;

(2) provide a primary barrier, which may be a container, including a shell, or tank, designed to contain the hazardous waste;

(3) for wastes stored outdoors, provide that the waste and containers will not be in standing precipitation;

(4) for liquid wastes, provide a secondary containment system that assures that any released liquids are contained and promptly detected and removed from the waste area, or vapor detection system that assures that any released liquids or vapors are promptly detected and an appropriate response taken, for example, additional containment, such as overpacking, or removal from the waste area; and

(5) provide monitoring and inspection procedures that assure the controls and containment systems are working as designed and that releases that may adversely impact human health or the environment are not escaping from the unit.

(b) Hazardous waste munitions and explosives stored in accordance with Sections R315-265-1200 through R315-265-1202 may be stored in one of the places listed in Subsections R315-265-1201(b)(1) through R315-265-1201(b)(3):

(1) Earth-covered magazines. Earth-covered magazines shall be:

(i) constructed of waterproofed, reinforced concrete or structural steel arches, with steel doors that are kept closed when not being accessed;

(ii) designed and constructed:

(A) to be of sufficient strength and thickness to support the weight of any explosives or munitions stored and any equipment used in the unit;

(B) to provide working space for personnel and equipment in the unit; and

(C) to withstand movement activities that occur in the unit; and

(iii) located and designed, with walls and earthen covers that direct an explosion in the unit in a safe direction, so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

(2) Above-ground magazines. Above-ground magazines shall be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

(3) Outdoor or open storage areas. Outdoor or open storage areas shall be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

(c) Hazardous waste munitions and explosives shall be stored in accordance with a Standard Operating Procedure specifying procedures to ensure safety, security, and environmental protection. If these procedures serve the same purpose as the security and inspection requirements of Section R315-265-14, the preparedness and prevention procedures of Sections R315-265-30 through R315-265-37, and the contingency plan and emergency procedures requirements of Sections R315-265-50 through R315-265-56, then these procedures will be used to fulfill those requirements.

(d) Hazardous waste munitions and explosives shall be packaged to ensure safety in handling and storage.

(e) Hazardous waste munitions and explosives shall be inventoried at least annually.

(f) Hazardous waste munitions and explosives and their storage units shall be inspected and monitored to ensure explosives safety and to ensure that there is no migration of contaminants out of the unit.

R315-265-1202. Hazardous Waste Munitions and Explosives Storage -- Closure and Post-Closure Care.

(a) At closure of a magazine or unit which stored hazardous waste in accordance with Sections R315-265-1200 through R315-265-1202, the owner or operator shall remove or decontaminate the waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste, and manage them as hazardous waste unless Subsection R315-261-3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for magazines or units shall meet the requirements specified in Sections R315-265-110 through R315-265-121 and Sections R315-265-140 through R315-265-150, except that the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.

(b) If, after removing or decontaminating any residues and making reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in Subsection R315-265-1202(a), the owner or operator finds that not every contaminated subsoil can be practicably removed or decontaminated, the owner or operator shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills contained in Section R315-264-310.

KEY: hazardous waste, TSD facilities, interim status
Date of Last Change: [~~May 16,~~] 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-266**	**Filing ID: 57498**

Agency Information

1. Title catchline:	Environmental Quality, Waste Management and Radiation Control, Waste Management	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
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City, state and zip:	Salt Lake City, UT 84114-4880	
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Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:

R315-266. Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities

4. Purpose of the new rule or reason for the change:

In February of 1997, the EPA finalized a rulemaking known as the Military Munitions Rule. Authorized states were not required to adopt this rule because it was considered less stringent than existing regulations. At that time, Utah adopted a few of the rules.

In July of 2023, comments were received from the EPA that Utah should adopt more of the regulations promulgated in the Military Munitions Rule because Utah had begun to regulate military facilities in ways that appeared to be consistent with these regulations. Utah then conducted a review of the proposed regulations in the Military Munitions Rule and it was determined that some, but not all, of the proposed rules should be adopted resulting in an amendment to Rule R315-266.

In December of 2024, the EPA finalized five regulatory amendments that had been withdrawn from a rulemaking in December of 2023. The amendments made technical corrections to various hazardous waste regulations including some in 40 CFR 266.

In October of 2024, the EPA finalized regulations for the management of certain hydrofluorocarbons and substitutes (ignitable spent refrigerants) under the American Innovation and Manufacturing Act of 2020. This rulemaking included amendments to rules regarding the recycling and disposal hydrofluorocarbons.

As an authorized state, Utah is required to maintain a program that is equivalent to the federal program and therefore, must amend Rule R315-266 to conform with the federal regulations.

5. Summary of the new rule or change:

Section R315-266-200 was added to the rule to specify that the requirements in Sections R315-266-200 through R315-266-206 are applicable to military munitions.

Section R315-266-201 adds definitions to the rule that apply to military munitions.

Subsections R315-266-202(a) through (c) were added to define when a military munition becomes a solid waste and when a military munition is not a solid waste.

Sections R315-266-203 through R315-266-204 were added to provide standards for the transportation, emergency response actions, storage, and treatment and disposal of military munitions.

Subsection R315-266-508(a)(2)(ii) was amended to clarify that healthcare facilities may also include applicable EPA hazardous waste numbers on a hazardous waste manifest.

Sections R315-266-600 through R315-266-602 were added to the rule to provide the requirements for recycling and reuse of ignitable spent refrigerants.

Sections R315-266-600, through R315-266-611 are being renumbered due to the adoption of the rules for ignitable spent refrigerants.

Additionally, the Division of Waste Management and Radiation Control, Waste Management (Division) is correcting typographical and formatting errors in Rule R315-266.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

It is not anticipated that this rulemaking will result in any cost or savings to the state budget because the state does not manage military munitions and does not recycle ignitable spent refrigerants.

Any costs associated with new rules will be absorbed in the current agency budget.

B. Local governments:

It is not anticipated that this rulemaking will result in any cost or savings to local governments because there are no local governments in Utah that manage military munitions or recycle ignitable spent refrigerants.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

It is not anticipated that the rulemaking regarding military munitions will result in any cost or savings to small businesses because there are no small businesses in Utah engaged in this activity.

It is anticipated that the new rules regarding management of spent ignitable refrigerants will result in cost savings, however, compliance with the new rules is voluntary and it is unknown how many of the entities affected by the rule amendments will choose to comply with the new rules so it is not possible for the Division to determine the cost savings for any entity that chooses to comply with the new rules.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

It is not anticipated that the rulemaking regarding military munitions will result in any cost or savings to non-small businesses because there are no non-small businesses in Utah engaged in these activities.

It is anticipated that the new rules regarding management of spent ignitable refrigerants will result in cost savings, however; compliance with the new rules is voluntary and it is unknown how many of the entities affected by the rule amendments will choose to comply with the new rules so it is not possible for the Division to determine the cost savings for any entity that chooses to comply with the new rules.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

It is not anticipated that the rulemaking regarding military munitions will result in any cost or savings to persons other than small businesses, non-small businesses, state or local governments that must comply with these rules because there are no persons other than small businesses, non-small businesses, state or local governments in Utah engaged in this activity.

It is anticipated that the new rules regarding management of spent ignitable refrigerants will result in cost savings, however, compliance with the new rules is voluntary and it is unknown how many of the entities affected by the rule amendments will choose to comply with the new rules so it is not possible for the Division to determine the cost savings for any entity that chooses to comply with the new rules.

F. Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs above those costs that are already in place for affected persons who must comply with these rules.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table

Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$0**	**$0**	**$0**	**$0**	**$0**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**

H. Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

Section 19-6-105	Section 19-6-106	

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.

A. Comments will be accepted until:	10/31/2025

10. This rule change MAY become effective on:	11/17/2025

NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.

Agency Authorization Information

Agency head or designee and title:	Douglas J. Hansen, Director	**Date:**	09/12/2025

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-266. Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities.

R315-266-200. Military Munitions -- Applicability.

(a) The rules in Sections R315-266-200 through R315-266-206 identify when military munitions become a solid waste, and, if these wastes are also hazardous under Sections R315-266-200 through R315-266-206 or Rule R315-261, the management standards that apply to these wastes.

(b) Unless otherwise specified in Sections R315-266-200 through R315-266-206, the applicable requirements in Rules R315-260 through R315-270 apply to waste military munitions.

R315-266-201. Military Munitions -- Definitions.

(a) In addition to the definitions in Section R315-260-10, the definitions in Subsections R315-266-201(a)(1) through R315-266-201(a)(11) apply to Sections R315-266-200 through R315-266-206:

(1) Active range means a military range that is currently in service and is being regularly used for range activities.

(2) Chemical agents and munitions are defined as in 50 U.S.C. Section 1521(p)(1).

(3) Director is as defined in Section R315-270-2.

(4) Explosives or munitions emergency response specialist is as defined in Section R315-260-10.

(5) Explosives or munitions emergency is as defined in Section R315-260-10.

(6) Explosives or munitions emergency response is as defined in Section R315-260-10.

(7) Inactive range means a military range that is not currently being used, but that is still under military control and considered by the military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.

(8) Military means the Department of Defense (DOD), the Armed Services, Coast Guard, National Guard, Department of Energy (DOE), or other parties under contract or acting as an agent for the foregoing, who handle military munitions.

(9) Military munitions is as defined in Section R315-260-10.

(10) Military range means designated land and water areas set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.

(11) Unexploded ordnance (UXO) means military munitions that have been primed, fused, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

R315-266-202. Military Munitions -- Definition of Solid Waste.

(a) [~~Reserved.~~]A military munition is not a solid waste if:

(1) used for its intended purpose, including:

(i) use in training military personnel or explosives and munitions emergency response specialists, including training in proper destruction of unused propellant or other munitions; or

(ii) use in research, development, testing, and evaluation of military munitions, weapons, or weapon systems.

(2) An unused munition, or component thereof, is being repaired, reused, recycled, reclaimed, disassembled, reconfigured, or otherwise subjected to materials recovery activities, unless the activities involve use constituting disposal as defined in Subsection R315-261-2(c)(1), or burning for energy recovery as defined in Subsection R315-261-2(c)(2).

(b) [~~Reserved.~~]An unused military munition is a solid waste if any of the situations listed in Subsections R315-266-202(b)(1) through R315-266-202(b)(4) occurs:

(1) the munition is abandoned by being disposed of, burned, detonated, except during intended use as specified in Subsection R315-266-202(a), incinerated, or treated before disposal; or

(2) the munition is removed from storage in a military magazine or other storage area to be disposed of, burned, or incinerated, or treated before disposal; or

(3) the munition is deteriorated or damaged; for example the integrity of the munition is compromised by cracks, leaks, or other damage; to the point that it cannot be put into serviceable condition and cannot reasonably be recycled or used for other purposes; or

(4) the munition has been declared a solid waste by an authorized military official.

(c) [~~Reserved.~~]A used or fired military munition is a solid waste:

(1) if transported off range or from the site of use, where the site of use is not a range, for the purposes of storage, reclamation, treatment, disposal, or treatment before disposal; or

(2) if recovered, collected, and then disposed of by burial, or landfilling either on or off a range.

(d) For purposes of Subsection 19-6-102(19)(a), a used or fired military munition is a solid waste, and, therefore, is potentially subject to RCRA corrective action authorities under [~~s~~]Sections 3004(u) and 3004(v), and 3008(h), or imminent and substantial endangerment authorities under [~~s~~]Section 7003, if the munition lands off[-] range and is not promptly retrieved, [~~rendered~~]made safe, or both[~~, and/or retrieved~~]. Any imminent and substantial threats associated with any remaining material shall be addressed. If remedial action is infeasible,

the operator of the range shall maintain a record of the event for as long as any threat remains. The record shall include the type of munition and its location, to the extent the location is known.

R315-266-203. Military Munitions -- Standards Applicable to the Transportation of Solid Waste Military Munitions.

(a) Criteria for hazardous waste regulation of waste non-chemical military munitions in transportation.

(1) Waste military munitions that are being transported and that exhibit a hazardous waste characteristic, are listed as hazardous waste under Rule R315-261, or are otherwise identified as a hazardous waste are subject to the applicable sections of Rules R315-260 through R315-270.

R315-266-204. Military Munitions -- Standards Applicable to Emergency Responses.

Explosives and munitions emergencies involving military munitions or explosives are subject to Section R315-270-61.

R315-266-205. Military Munitions -- Standards Applicable to the Storage of Solid Waste Military Munitions.

(a) Criteria for hazardous waste regulation of waste non-chemical military munitions in storage.

(1) Waste military munitions in storage that exhibit a hazardous waste characteristic, are listed as hazardous waste under Rule R315-261, or are otherwise identified as a hazardous waste are subject to the applicable sections of Rules R315-260 through R315-270.

R315-266-206. Military Munitions -- Standards Applicable to the Treatment and Disposal of Waste Military Munitions.

The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in Rules R315-260 through R315-270.

R315-266-508. Hazardous Waste Pharmaceuticals -- Shipping Non-Creditable Hazardous Waste Pharmaceuticals from a Healthcare Facility or Evaluated Hazardous Waste Pharmaceuticals from a Reverse Distributor.

(a) Shipping non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. A healthcare facility shall ship non-creditable hazardous waste pharmaceuticals and a reverse distributor shall ship evaluated hazardous waste pharmaceuticals off[-] site to a designated facility, that is, a permitted or interim status treatment, storage, or disposal facility, in compliance with:

(1) the [~~following~~]pre-transport requirements listed in Subsections R315-266-508(a)(1)(i) through R315-266-508(a)(1)(iv), before transporting or offering for transport off[-] site:

(i) Packaging. Package the waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR parts 173, 178, and 180.

(ii) Labeling. Label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172 subpart E.

(iii) Marking.

(A) Mark each package of hazardous waste pharmaceuticals in accordance with the applicable Department of Transportation (DOT) regulations on hazardous materials under 49 CFR part 172 subpart D.

(B) Mark each container of 119 gallons or less used in the transportation in accordance with the requirements of 49 CFR 172.304 with the following words and information:

HAZARDOUS WASTE---Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the [~~U.S.~~]US Environmental Protection Agency.

Healthcare Facility's or Reverse distributor's Name and Address _____.

Healthcare Facility's or Reverse distributor's EPA Identification Number_____.

Manifest Tracking Number_____.

(C) Lab packs that will be incinerated in compliance with Subsection R315-268-42(c) are not required to be marked with EPA [~~H~~]hazardous [~~W~~]waste [~~N~~]numbers, that is, hazardous waste codes, except D004, D005, D006, D007, D008, D010, and D011, if applicable. A nationally recognized electronic system, such as bar coding or radio frequency identification tag, may be used to identify the applicable EPA hazardous waste numbers, that is, hazardous waste codes.

(iv) Placarding. Placard or offer the initial transporter the appropriate placards according to [~~Department of Transportation~~]DOT regulations for hazardous materials under 49 CFR part 172 subpart F.

(2) the manifest requirements of Sections R315-262-20 through R315-262-27, except as follows:

(i) A healthcare facility shipping non-creditable hazardous waste pharmaceuticals is not required to list each applicable EPA hazardous waste number, in other words, hazardous waste codes, in Item 13 of EPA Form 8700-22.

(ii) A healthcare facility shipping non-creditable hazardous waste pharmaceuticals shall write either the word "PHARMS" or "PHRM" in Item 13 of EPA Form 8700-22. A healthcare facility may also include the applicable EPA hazardous waste numbers, that is, hazardous waste codes, in Item 13 of EPA Form 8700-22.

(b) Exporting non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. A healthcare facility or reverse distributor that exports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to Sections R315-262-80 through R315-262-89.

(c) Importing non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals. Any person that imports non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals is subject to Sections R315-262-80 through R315-262-89. A healthcare facility or reverse distributor may not accept imported non-creditable hazardous waste pharmaceuticals or evaluated hazardous waste pharmaceuticals unless they have a permit or interim status that allows them to accept hazardous waste from off site.

R315-266-600. Ignitable Spent Refrigerants Recycled for Reuse -- Purpose and Applicability.

(a) The purpose of Sections R315-266-600 through R315-266-602 is to reduce emissions of ignitable spent refrigerants to the lowest achievable level by maximizing the recovery and safe recycling for reuse of the refrigerants during the service, repair, and disposal of appliances.

(b) The requirements of Sections R315-266-600 through R315-266-602 operate in lieu of Rules R315-260 through R315-270 and apply to lower flammability spent refrigerants, as defined in Section R315-266-601, where the refrigerant exhibits the hazardous waste characteristic of ignitability per Section R315-261-21 and is being recycled for reuse in the United States.

(c) These requirements do not apply to other ignitable spent refrigerants. Ignitable spent refrigerants not subject to Sections R315-266-600 through R315-266-602 are subject to the applicable requirements of Rules R315-260 through R315-270 when recovered, that is, removed from an appliance and stored in an external container, dispose of, or both.

R315-266-601. Ignitable Spent Refrigerants Recycled for Reuse -- Definitions for Sections R315-266-600 through R315-266-602.

For the purposes of Sections R315-266-600 through R315-266-602, the terms in Subsections R315-266-601(a) through R315-266-601(d) are defined as follows:

(a) "Refrigerant" has the meaning as defined in 40 CFR 82.152.

(b) "Ignitable spent refrigerant" means a used refrigerant that cannot be reused without first being processed, and that exhibits the hazardous characteristic of ignitability per Section R315-261-21. Used refrigerants that can be legitimately reused without processing are not spent refrigerant.

(c) "Recycle for reuse" if referring to an ignitable spent refrigerant, means to process the refrigerant to remove contamination and prepare it to be used again. "Recycle for reuse" does not include recycling that involves burning for energy recovery or use in a manner constituting disposal as defined in Subsection R315-261-2(c), or sham recycling as defined in Subsection R315-261-2(g).

(d) "Lower flammability spent refrigerant" means a spent refrigerant that is not considered highly flammable. Highly flammable refrigerants include the following chemicals: butane, isobutane, methane, propane, and propylene.

R315-266-602. Ignitable Spent Refrigerants Recycled for Reuse -- Standards for Ignitable Spent Refrigerants Recycled for Reuse in Accordance with Sections R315-266-600 through R315-266-602.

(a) A person who recovers, that is, removes from an appliance and stores in an external container, recycles, or both, ignitable spent refrigerants for reuse either for further use in equipment of the same owner, or in compliance with motor vehicle air conditioner (MVAC) standards in 40 CFR part 82, subpart B, or who sends recovered refrigerant off site to be recycled for reuse shall:

(1) recover, recycle, or both, for reuse the ignitable spent refrigerant using equipment that is certified for that type of refrigerant and appliance under 40 CFR 82.36, 40 CFR 82.158 or both; and

(2) not speculatively accumulate the ignitable spent refrigerant per Subsection R315-261-1(c).

(b) A person who receives ignitable spent refrigerants from off site, and are not a transfer facility that stores the refrigerants for less than ten days before sending the refrigerant to another site to be recycled for reuse, shall:

(1) if recovering the refrigerant, recover the ignitable spent refrigerant using equipment that is certified for that type of refrigerant and appliance under 40 CFR 82.36;

(2) meet the applicable emergency preparedness and response requirements of Sections R315-261-400, R315-261-410, R315-261-411, and R315-261-420; and

(3) not speculatively accumulate the ignitable spent refrigerant per Subsection R315-261-1(c).

(c) A person receiving ignitable spent refrigerant from off site to be recycled for reuse in accordance with Sections R315-266-600 through R315-266-602 shall:

(1) maintain certification by EPA under 40 CFR 82.164;

(2) meet the applicable emergency preparedness and response requirements of Sections R315-261-400, R315-261-410, R315-261-411, and R315-261-420; and

(3) starting with the calendar year beginning January 1, 2029, not speculatively accumulate the ignitable spent refrigerant per Subsection R315-261-1(c).

R315-266-[~~600~~]1000. Appendix I to Rule R315-266 -- Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals.

Appendix I of 40 CFR 266, 2015 edition, is [~~adopted and~~]incorporated by reference.

R315-266-[~~601~~]1001. Appendix II to Rule R315-266 -- Tier I Feed Rate Screening Limits for Total Chlorine.

Table 2

Terrain-adjusted effective stack height (m)	Noncomplex Terrain		Complex Terrain
	Urban (g/hr)	Rural (g/hr)	(g/hr)
4	8.2E+01	4.2E+01	1.9E+01
6	9.1E+01	4.8E+01	2.8E+01
8	1.0E+02	5.3E+01	4.1E+01
10	1.2E+02	6.2E+01	5.8E+01
12	1.3E+02	7.7E+01	7.2E+01
14	1.5E+02	9.1E+01	9.1E+01

16	1.7E+02	1.2E+02	1.1E+02
18	1.9E+02	1.4E+02	1.2E+02
20	2.1E+02	1.8E+02	1.3E+02
22	2.4E+02	2.3E+02	1.4E+02
24	2.7E+02	2.9E+02	1.6E+02
26	3.1E+02	3.7E+02	1.7E+02
28	3.5E+02	4.7E+02	1.9E+02
30	3.9E+02	5.8E+02	2.1E+02
35	5.3E+02	9.6E+02	2.6E+02
40	6.2E+02	1.4E+03	3.3E+02
45	8.2E+02	2.0E+03	4.0E+02
50	1.1E+03	2.6E+03	4.8E+02
55	1.3E+03	3.5E+03	6.2E+02
60	1.6E+03	4.6E+03	7.7E+02
65	2.0E+03	6.2E+03	9.1E+02
70	2.3E+03	7.2E+03	1.1E+03
75	2.5E+03	8.6E+03	1.2E+03
80	2.9E+03	1.0E+04	1.3E+03
85	3.3E+03	1.2E+04	1.4E+03
90	3.7E+03	1.4E+04	1.6E+03
95	4.2E+03	1.7E+04	1.8E+03
100	4.8E+03	2.1E+04	2.0E+03
105	5.3E+03	2.4E+04	2.3E+03
110	6.2E+03	2.9E+04	2.5E+03
115	7.2E+03	3.5E+04	2.8E+03
120	8.2E+03	4.1E+04	3.2E+03

[~~Table~~

~~Terrain adjusted effective stack height (m)~~ | ~~Noncomplex Terrain Urban (g/hr)~~ | ~~Noncomplex Terrain Rural (g/hr)~~ | ~~Complex Terrain (g/hr)~~

~~4 8.2E+01 4.2E+01 1.9E+01~~
~~6 9.1E+01 4.8E+01 2.8E+01~~
~~8 1.0E+02 5.3E+01 4.1E+01~~
~~10 1.2E+02 6.2E+01 5.8E+01~~
~~12 1.3E+02 7.7E+01 7.2E+01~~
~~14 1.5E+02 9.1E+01 9.1E+01~~
~~16 1.7E+02 1.2E+02 1.1E+02~~
~~18 1.9E+02 1.4E+02 1.2E+02~~
~~20 2.1E+02 1.8E+02 1.3E+02~~
~~22 2.4E+02 2.3E+02 1.4E+02~~
~~24 2.7E+02 2.9E+02 1.6E+02~~
~~26 3.1E+02 3.7E+02 1.7E+02~~
~~28 3.5E+02 4.7E+02 1.9E+02~~
~~30 3.9E+02 5.8E+02 2.1E+02~~
~~35 5.3E+02 9.6E+02 2.6E+02~~
~~40 6.2E+02 1.4E+03 3.3E+02~~
~~45 8.2E+02 2.0E+03 4.0E+02~~
~~50 1.1E+03 2.6E+03 4.8E+02~~
~~55 1.3E+03 3.5E+03 6.2E+02~~
~~60 1.6E+03 4.6E+03 7.7E+02~~
~~65 2.0E+03 6.2E+03 9.1E+02~~
~~70 2.3E+03 7.2E+03 1.1E+03~~
~~75 2.5E+03 8.6E+03 1.2E+03~~
~~80 2.9E+03 1.0E+04 1.3E+03~~
~~85 3.3E+03 1.2E+04 1.4E+03~~
~~90 3.7E+03 1.4E+04 1.6E+03~~
~~95 4.2E+03 1.7E+04 1.8E+03~~
~~100 4.8E+03 2.1E+04 2.0E+03~~
~~105 5.3E+03 2.4E+04 2.3E+03~~
~~110 6.2E+03 2.9E+04 2.5E+03~~
~~115 7.2E+03 3.5E+04 2.8E+03~~
~~120 8.2E+03 4.1E+04 3.2E+03~~
]

R315-266-[~~602~~]1002. Appendix III to Rule R315-266 -- Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride.

[~~Appendix III of 40 CFR 266, 2015 edition, is adopted and incorporated by reference.~~]

Table 3						
Terrain-adjusted effective stack height (m)	Noncomplex terrain				Complex terrain	
	Values for urban areas		Values for rural areas		Values for use in urban and rural areas	
	Cl_2 (g/hr)	HCl (g/hr)	Cl_2 (g/hr)	HCl (g/hr)	Cl_2 (g/hr)	HCl (g/hr)
4	8.2E+01	1.4E+03	4.2E+01	7.3E+02	1.9E+01	3.3E+02
6	9.1E+01	1.6E+03	4.8E+01	8.2E+02	2.8E+01	4.9E+02
8	1.0E+02	1.8E+03	5.3E+01	9.2E+02	4.1E+01	7.1E+02
10	1.2E+02	2.0E+03	6.2E+01	1.1E+03	5.8E+01	1.0E+03
12	1.3E+02	2.3E+03	7.7E+01	1.3E+03	7.2E+01	1.3E+03
14	1.5E+02	2.6E+03	9.1E+01	1.6E+03	9.1E+01	1.6E+03
16	1.7E+02	2.9E+03	1.2E+02	2.0E+03	1.1E+02	1.8E+03
18	1.9E+02	3.3E+03	1.4E+02	2.5E+03	1.2E+02	2.0E+03
20	2.1E+02	3.7E+03	1.8E+02	3.1E+03	1.3E+02	2.3E+03
22	2.4E+02	4.2E+03	2.3E+02	3.9E+03	1.4E+02	2.4E+03
24	2.7E+02	4.8E+03	2.9E+02	5.0E+03	1.6E+02	2.8E+03
26	3.1E+02	5.4E+03	3.7E+02	6.5E+03	1.7E+02	3.0E+03
28	3.5E+02	6.0E+03	4.7E+02	8.1E+03	1.9E+02	3.4E+03
30	3.9E+02	6.9E+03	5.8E+02	1.0E+04	2.1E+02	3.7E+03
35	5.3E+02	9.2E+03	9.6E+02	1.7E+04	2.6E+02	4.6E+03
40	6.2E+02	1.1E+04	1.4E+03	2.5E+04	3.3E+02	5.7E+03
45	8.2E+02	1.4E+04	2.0E+03	3.5E+04	4.0E+02	7.0E+03
50	1.1E+03	1.8E+04	2.6E+03	4.6E+04	4.8E+02	8.4E+03
55	1.3E+03	2.3E+04	3.5E+03	6.1E+04	6.2E+02	1.1E+04
60	1.6E+03	2.9E+04	4.6E+03	8.1E+04	7.7E+02	1.3E+04
65	2.0E+03	3.4E+04	6.2E+03	1.1E+05	9.1E+02	1.6E+04
70	2.3E+03	3.9E+04	7.2E+03	1.3E+05	1.1E+03	1.8E+04
75	2.5E+03	4.5E+04	8.6E+03	1.5E+05	1.2E+03	2.0E+04
80	2.9E+03	5.0E+04	1.0E+04	1.8E+05	1.3E+03	2.3E+04
85	3.3E+03	5.8E+04	1.2E+04	2.2E+05	1.4E+03	2.5E+04
90	3.7E+03	6.6E+04	1.4E+04	2.5E+05	1.6E+03	2.9E+04
95	4.2E+03	7.4E+04	1.7E+04	3.0E+05	1.8E+03	3.2E+04
100	4.8E+03	8.4E+04	2.1E+04	3.6E+05	2.0E+03	3.5E+04
105	5.3E+03	9.2E+04	2.4E+04	4.3E+05	2.3E+03	3.9E+04
110	6.2E+03	1.1E+05	2.9E+04	5.1E+05	2.5E+03	4.5E+04
115	7.2E+03	1.3E+05	3.5E+04	6.1E+05	2.8E+03	5.0E+04
120	8.2E+03	1.4E+05	4.1E+04	7.2E+05	3.2E+03	5.6E+04

R315-266-[~~603~~]1003. Appendix IV to Rule R315-266 -- Reference Air Concentrations*.

Table 4		
Constituent	CAS No.	RAC (ug/m^3)
Acetaldehyde	75-07-0	10
Acetonitrile	75-05-8	10
Acetophenone	98-86-2	100
Acrolein	107-02-8	20
Aldicarb	116-06-3	1
Aluminum Phosphide	20859-73-8	0.3
Allyl Alcohol	107-18-6	5
Antimony	7440-36-0	0.3
Barium	7440-39-3	50
Barium Cyanide	542-62-1	50
Bromomethane	74-83-9	0.8
Calcium Cyanide	592-01-8	30
Carbon Disulfide	75-15-0	200
Chloral	75-87-6	2
Chlorine (free)		0.4
2-Chloro-1,3-butadiene	126-99-8	3

Chromium III	16065-83-1	1,000
Copper Cyanide	544-92-3	5
Cresols	1319-77-3	50
Cumene	98-82-8	1
Cyanide (free)	57-12-15	20
Cyanogen	460-19-5	30
Cyanogen Bromide	506-68-3	80
Di-n-butyl Phthalate	84-74-2	100
o-Dichlorobenzene	95-50-1	10
p-Dichlorobenzene	106-46-7	10
Dichlorodifluoromethane	75-71-8	200
2,4-Dichlorophenol	120-83-2	3
Diethyl Phthalate	84-66-2	800
Dimethoate	60-51-5	0.8
2,4-Dinitrophenol	51-28-5	2
Dinoseb	88-85-7	0.9
Diphenylamine	122-39-4	20
Endosulfan	115-29-1	0.05
Endrin	72-20-8	0.3
Fluorine	7782-41-4	50
Formic Acid	64-18-6	2000
Glycidyaldehyde	765-34-4	0.3
Hexachlorocyclopentadiene	77-47-4	5
Hexachlorophene	70-30-4	0.3
Hydrocyanic Acid	74-90-8	20
Hydrogen Chloride	7647-01-1	7
Hydrogen Sulfide	7783-06-4	3
Isobutyl Alcohol	78-83-1	300
Lead	7439-92-1	0.09
Maleic Anhydride	108-31-6	100
Mercury	7439-97-6	0.3
Methacrylonitrile	126-98-7	0.1
Methomyl	16752-77-5	20
Methoxychlor	72-43-5	50
Methyl Chlorocarbonate	79-22-1	1,000
Methyl Ethyl Ketone	78-93-3	80
Methyl Parathion	298-00-0	0.3
Nickel Cyanide	557-19-7	20
Nitric Oxide	10102-43-9	100
Nitrobenzene	98-95-3	0.8
Pentachlorobenzene	608-93-5	0.8
Pentachlorophenol	87-86-5	30
Phenol	108-95-2	30
M-Phenylenediamine	108-45-2	5
Phenylmercuric Acetate	62-38-4	0.075
Phosphine	7803-51-2	0.3
Phthalic Anhydride	85-44-9	2000
Potassium Cyanide	151-50-8	50
Potassium Silver Cyanide	506-61-6	200
Pyridine	110-86-1	1
Selenious Acid	7783-60-8	3
Selenourea	630-10-4	5
Silver	7440-22-4	3
Silver Cyanide	506-64-9	100
Sodium Cyanide	143-33-9	30
Strychnine	57-24-9	0.3
1,2,4,5-Tetrachlorobenzene	95-94-3	0.3
2,3,4,6-Tetrachlorophenol	58-90-2	30
Tetraethyl Lead	78-00-2	0.0001

Tetrahydrofuran	109-99-9	10
Thallic Oxide	1314-32-5	0.3
Thallium	7440-28-0	0.5
Thallium (I) Acetate	563-68-8	0.5
Thallium (I) Carbonate	6533-73-9	0.3
Thallium (I) Chloride	7791-12-0	0.3
Thallium (I) Nitrate	10102-45-1	0.5
Thallium Selenite	12039-52-0	0.5
Thallium (I) Sulfate	7446-18-6	0.075
Thiram	137-26-8	5
Toluene	108-88-3	300
1,2,4-Trichlorobenzene	120-82-1	20
Trichloromonofluoromethane	75-69-4	300
2,4,5-Trichlorophenol	95-95-4	100
Vanadium Pentoxide	1314-62-1	20
Warfarin	81-81-2	0.3
Xylenes	1330-20-7	80
Zinc Cyanide	557-21-1	50
Zinc Phosphide	1314-84-7	0.3
The RAC for other appendix VIII Rule R315-261 constituents not listed in Appendix IV, Table 4 or in appendix V of Rule R315-266 is 0.1 ug/m^3.		

[~~Table~~

~~Constituent~~	~~CAS No.~~	~~RAC (ug/m^3)~~
~~Acetaldehyde~~	~~75-07-0~~	~~10~~
~~Acetonitrile~~	~~75-05-8~~	~~10~~
~~Acetophenone~~	~~98-86-2~~	~~100~~
~~Acrolein~~	~~107-02-8~~	~~20~~
~~Aldicarb~~	~~116-06-3~~	~~1~~
~~Aluminum Phosphide~~	~~20859-73-8~~	~~0.3~~
~~Allyl Alcohol~~	~~107-18-6~~	~~5~~
~~Antimony~~	~~7440-36-0~~	~~0.3~~
~~Barium~~	~~7440-39-3~~	~~50~~
~~Barium Cyanide~~	~~542-62-1~~	~~50~~
~~Bromomethane~~	~~74-83-9~~	~~0.8~~
~~Calcium Cyanide~~	~~592-01-8~~	~~30~~
~~Carbon Disulfide~~	~~75-15-0~~	~~200~~
~~Chloral~~	~~75-87-6~~	~~2~~
~~Chlorine (free)~~		~~0.4~~
~~2-Chloro-1,3-butadiene~~	~~126-99-8~~	~~3~~
~~Chromium III~~	~~16065-83-1~~	~~1000~~
~~Copper Cyanide~~	~~544-92-3~~	~~5~~
~~Cresols~~	~~1319-77-3~~	~~50~~
~~Cumene~~	~~98-82-8~~	~~1~~
~~Cyanide (free)~~	~~57-12-15~~	~~20~~
~~Cyanogen~~	~~460-19-5~~	~~30~~
~~Cyanogen Bromide~~	~~506-68-3~~	~~80~~
~~Di-n-butyl Phthalate~~	~~84-74-2~~	~~100~~
~~o-Dichlorobenzene~~	~~95-50-1~~	~~10~~
~~p-Dichlorobenzene~~	~~106-46-7~~	~~10~~
~~Dichlorodifluoromethane~~	~~75-71-8~~	~~200~~
~~2,4-Dichlorophenol~~	~~120-83-2~~	~~3~~
~~Diethyl Phthalate~~	~~84-66-2~~	~~800~~
~~Dimethoate~~	~~60-51-5~~	~~0.8~~
~~2,4-Dinitrophenol~~	~~51-28-5~~	~~2~~
~~Dinoseb~~	~~88-85-7~~	~~0.9~~
~~Diphenylamine~~	~~122-39-4~~	~~20~~
~~Endosulfan~~	~~115-29-1~~	~~0.05~~
~~Endrin~~	~~72-20-8~~	~~0.3~~
~~Fluorine~~	~~7782-41-4~~	~~50~~
~~Formic Acid~~	~~64-18-6~~	~~2000~~
~~Glycidyaldehyde~~	~~765-34-4~~	~~0.3~~
~~Hexachlorocyclopentadiene~~	~~77-47-4~~	~~5~~
~~Hexachlorophene~~	~~70-30-4~~	~~0.3~~
~~Hydrocyanic Acid~~	~~74-90-8~~	~~20~~
~~Hydrogen Chloride~~	~~7647-01-1~~	~~7~~
~~Hydrogen Sulfide~~	~~7783-06-4~~	~~3~~
~~Isobutyl Alcohol~~	~~78-83-1~~	~~300~~
~~Lead~~	~~7439-92-1~~	~~0.09~~

~~Maleic Anhydride 108-31-6 100~~
~~Mercury 7439-97-6 0.3~~
~~Methacrylonitrile 126-98-7 0.1~~
~~Methomyl 16752-77-5 20~~
~~Methoxychlor 72-43-5 50~~
~~Methyl Chlorocarbonate 79-22-1 1000~~
~~Methyl Ethyl Ketone 78-93-3 80~~
~~Methyl Parathion 298-00-0 0.3~~
~~Nickel Cyanide 557-19-7 20~~
~~Nitric Oxide 10102-43-9 100~~
~~Nitrobenzene 98-95-3 0.8~~
~~Pentachlorobenzene 608-93-5 0.8~~
~~Pentachlorophenol 87-86-5 30~~
~~Phenol 108-95-2 30~~
~~M-Phenylenediamine 108-45-2 5~~
~~Phenylmercuric Acetate 62-38-4 0.075~~
~~Phosphine 7803-51-2 0.3~~
~~Phthalic Anhydride 85-44-9 2000~~
~~Potassium Cyanide 151-50-8 50~~
~~Potassium Silver Cyanide 506-61-6 200~~
~~Pyridine 110-86-1 1~~
~~Selenious Acid 7783-60-8 3~~
~~Selenourea 630-10-4 5~~
~~Silver 7440-22-4 3~~
~~Silver Cyanide 506-64-9 100~~
~~Sodium Cyanide 143-33-9 30~~
~~Strychnine 57-24-9 0.3~~
~~1,2,4,5-Tetrachlorobenzene 95-94-3 0.3~~
~~2,3,4,6-Tetrachlorophenol 58-90-2 30~~
~~Tetraethyl Lead 78-00-2 0.0001~~
~~Tetrahydrofuran 109-99-9 10~~
~~Thallic Oxide 1314-32-5 0.3~~
~~Thallium 7440-28-0 0.5~~
~~Thallium (I) Acetate 563-68-8 0.5~~
~~Thallium (I) Carbonate 6533-73-9 0.3~~
~~Thallium (I) Chloride 7791-12-0 0.3~~
~~Thallium (I) Nitrate 10102-45-1 0.5~~
~~Thallium Selenite 12039-52-0 0.5~~
~~Thallium (I) Sulfate 7446-18-6 0.075~~
~~Thiram 137-26-8 5~~
~~Toluene 108-88-3 300~~
~~1,2,4-Trichlorobenzene 120-82-1 20~~
~~Trichloromonofluoromethane 75-69-4 300~~
~~2,4,5-Trichlorophenol 95-95-4 100~~
~~Vanadium Pentoxide 1314-62-1 20~~
~~Warfarin 81-81-2 0.3~~
~~Xylenes 1330-20-7 80~~
~~Zinc Cyanide 557-21-1 50~~
~~Zinc Phosphide 1314-84-7 0.3~~

~~*The RAC for other appendix VIII Rule R315-261 constituents not listed herein or in appendix V of Rule R315-266 is 0.1 ug/m³.~~
]

R315-266-[~~604~~]1004. Appendix V to Rule R315-266 -- Risk Specific Doses, 10^{-5}.

Table 5			
Constituent	CAS No.	Unit risk (m^3/ug)	RsD (ug/m^3)
Acrylamide	79-06-1	1.3E−03	7.7E−03
Acrylonitrile	107-13-1	6.8E−05	1.5E−01
Aldrin	309-00-2	4.9E−03	2.0E−03
Aniline	62-53-3	7.4E−06	1.4E + 00
Arsenic	7440-38-2	4.3E−03	2.3E−03
Benz(a)anthracene	56-55-3	8.9E−04	1.1E−02
Benzene	71-43-2	8.3E−06	1.2E + 00
Benzidine	92-87-5	6.7E−02	1.5E−04
Benzo(a)pyrene	50-32-8	3.3E−03	3.0E−03
Beryllium	7440-41-7	2.4E−03	4.2E−03
Bis(2-chloroethyl)ether	111-44-4	3.3E−04	3.0E−02
Bis(chloromethyl)ether	542-88-1	6.2E−02	1.6E−04
Bis(2-ethylhexyl)-phthalate	117-81-7	2.4E−07	4.2E + 01
1,3-Butadiene	106-99-0	2.8E−04	3.6E−02

Cadmium	7440-43-9	1.8E−03	5.6E−03
Carbon Tetrachloride	56-23-5	1.5E−05	6.7E−01
Chlordane	57-74-9	3.7E−04	2.7E−02
Chloroform	67-66-3	2.3E−05	4.3E−01
Chloromethane	74-87-3	3.6E−06	2.8E + 00
Chromium VI	7440-47-3	1.2E−02	8.3E−04
DDT	50-29-3	9.7E−05	1.0E−01
Dibenz(a,h)anthracene	53-70-3	1.4E−02	7.1E−04
1,2-Dibromo-3-chloropropane	96-12-8	6.3E−03	1.6E−03
1,2-Dibromoethane	106-93-4	2.2E−04	4.5E−02
1,1-Dichloroethane	75-34-3	2.6E−05	3.8E−01
1,2-Dichloroethane	107-06-2	2.6E−05	3.8E−01
1,1-Dichloroethylene	75-35-4	5.0E−05	2.0E−01
1,3-Dichloropropene	542-75-6	3.5E−01	2.9E−05
Dieldrin	60-57-1	4.6E−03	2.2E−03
Diethylstilbestrol	56-53-1	1.4E−01	7.1E−05
Dimethylnitrosamine	62-75-9	1.4E−02	7.1E−04
2,4-Dinitrotoluene	121-14-2	8.8E−05	1.1E−01
1,2-Diphenylhydrazine	122-66-7	2.2E−04	4.5E−02
1,4-Dioxane	123-91-1	1.4E−06	7.1E + 00
Epichlorohydrin	106-89-8	1.2E−06	8.3E + 00
Ethylene Oxide	75-21-8	1.0E−04	1.0E−01
Ethylene Dibromide	106-93-4	2.2E−04	4.5E−02
Formaldehyde	50-00-0	1.3E−05	7.7E−01
Heptachlor	76-44-8	1.3E−03	7.7E−03
Heptachlor Epoxide	1024-57-3	2.6E−03	3.8E−03
Hexachlorobenzene	118-74-1	4.9E−04	2.0E−02
Hexachlorobutadiene	87-68-3	2.0E−05	5.0E−01
Alpha-hexachloro-cyclohexane	319-84-6	1.8E−03	5.6E−03
Beta-hexachloro-cyclohexane	319-85-7	5.3E−04	1.9E−02
Gamma-hexachloro-cyclohexane	58-89-9	3.8E−04	2.6E−02
Hexachlorocyclo-hexane, Technical		5.1E−04	2.0E−02
Hexachlorodibenzo-p-dioxin(1,2 Mixture)		1.3E + 0	7.7E−06
Hexachloroethane	67-72-1	4.0E−06	2.5E + 00
Hydrazine	302-01-2	2.9E−03	3.4E−03
Hydrazine Sulfate	302-01-2	2.9E−03	3.4E−03
3-Methylcholanthrene	56-49-5	2.7E−03	3.7E−03
Methyl Hydrazine	60-34-4	3.1E−04	3.2E−02
Methylene Chloride	75-09-2	4.1E−06	2.4E + 00
4,4′-Methylene-bis-2-chloroaniline	101-14-4	4.7E−05	2.1E−01
Nickel	7440-02-0	2.4E−04	4.2E−02
Nickel Refinery Dust	7440-02-0	2.4E−04	4.2E−02
Nickel Subsulfide	12035-72-2	4.8E−04	2.1E−02
2-Nitropropane	79-46-9	2.7E−02	3.7E−04
N-Nitroso-n-butylamine	924-16-3	1.6E−03	6.3E−03
N-Nitroso-n-methylurea	684-93-5	8.6E−02	1.2E−04
N-Nitrosodiethylamine	55-18-5	4.3E−02	2.3E−04
N-Nitrosopyrrolidine	930-55-2	6.1E−04	1.6E−02
Pentachloronitrobenzene	82-68-8	7.3E−05	1.4E−01
PCBs	1336-36-3	1.2E−03	8.3E−03
Pronamide	23950-58-5	4.6E−06	2.2E + 00
Reserpine	50-55-5	3.0E−03	3.3E−03
2,3,7,8-Tetrachloro-dibenzo-p-dioxin	1746-01-6	4.5E + 01	2.2E−07
1,1,2,2-Tetrachloroethane	79-34-5	5.8E−05	1.7E−01
Tetrachloroethylene	127-18-4	4.8E−07	2.1E + 01
Thiourea	62-56-6	5.5E−04	1.8E−02
1,1,2-Trichloroethane	79-00-5	1.6E−05	6.3E−01
Trichloroethylene	79-01-6	1.3E−06	7.7E + 00

2,4,6-Trichlorophenol	88-06-2	5.7E−06	1.8E + 00
Toxaphene	8001-35-2	3.2E−04	3.1E−02
Vinyl Chloride	75-01-4	7.1E−06	1.4E + 00

[~~Table~~

~~Constituent~~	~~CAS No.~~	~~Unit risk (m3/microg)~~	~~RsD (microg/m3)~~
~~Acrylamide~~	~~79-06-1~~	~~1.3E-03~~	~~7.7E-03~~
~~Acrylonitrile~~	~~107-13-1~~	~~6.8E-05~~	~~1.5E-01~~
~~Aldrin~~	~~309-00-2~~	~~4.9E-03~~	~~2.0E-03~~
~~Aniline~~	~~62-53-3~~	~~7.4E-06~~	~~1.4E+00~~
~~Arsenic~~	~~7440-38-2~~	~~4.3E-03~~	~~2.3E-03~~
~~Benz(a)anthracene~~	~~56-55-3~~	~~8.9E-04~~	~~1.1E-02~~
~~Benzene~~	~~71-43-2~~	~~8.3E-06~~	~~1.2E+00~~
~~Benzidine~~	~~92-87-5~~	~~6.7E-02~~	~~1.5E-04~~
~~Benzo(a)pyrene~~	~~50-32-8~~	~~3.3E-03~~	~~3.0E-03~~
~~Beryllium~~	~~7440-41-7~~	~~2.4E-03~~	~~4.2E-03~~
~~Bis(2-chloroethyl) ether~~	~~111-44-4~~	~~3.3E-04~~	~~3.0E-02~~
~~Bis(chloromethyl)ether~~	~~542-88-1~~	~~6.2E-02~~	~~1.6E-04~~
~~Bis(2-ethylhexyl) -phthalate~~	~~117-81-7~~	~~2.4E-07~~	~~4.2E+01~~
~~1,3-Butadiene~~	~~106-99-0~~	~~2.8E-04~~	~~3.6E-02~~
~~Cadmium~~	~~7440-43-9~~	~~1.8E-03~~	~~5.6E-03~~
~~Carbon Tetrachloride~~	~~56-23-5~~	~~1.5E-05~~	~~6.7E-01~~
~~Chlordane~~	~~57-74-9~~	~~3.7E-04~~	~~2.7E-02~~
~~Chloroform~~	~~67-66-3~~	~~2.3E-05~~	~~4.3E-01~~
~~Chloromethane~~	~~74-87-3~~	~~3.6E-06~~	~~2.8E+00~~
~~Chromium VI~~	~~7440-47-3~~	~~1.2E-02~~	~~8.3E-04~~
~~DDT~~	~~50-29-3~~	~~9.7E-05~~	~~1.0E-01~~
~~Dibenz(a,h)anthracene~~	~~53-70-3~~	~~1.4E-02~~	~~7.1E-04~~
~~1,2-Dibromo-3 -chloropropane~~	~~96-12-8~~	~~6.3E-03~~	~~1.6E-03~~
~~1,2-Dibromoethane~~	~~106-93-4~~	~~2.2E-04~~	~~4.5E-02~~
~~1,1-Dichloroethane~~	~~75-34-3~~	~~2.6E-05~~	~~3.8E-01~~
~~1,2-Dichloroethane~~	~~107-06-2~~	~~2.6E-05~~	~~3.8E-01~~
~~1,1-Dichloroethylene~~	~~75-35-4~~	~~5.0E-05~~	~~2.0E-01~~
~~1,3-Dichloropropene~~	~~542-75-6~~	~~3.5E-01~~	~~2.9E-05~~
~~Dieldrin~~	~~60-57-1~~	~~4.6E-03~~	~~2.2E-03~~
~~Diethylstilbestrol~~	~~56-53-1~~	~~1.4E-01~~	~~7.1E-05~~
~~Dimethylnitrosamine~~	~~62-75-9~~	~~1.4E-02~~	~~7.1E-04~~
~~2,4-Dinitrotoluene~~	~~121-14-2~~	~~8.8E-05~~	~~1.1E-01~~
~~1,2-Diphenylhydrazine~~	~~122-66-7~~	~~2.2E-04~~	~~4.5E-02~~
~~1,4-Dioxane~~	~~123-91-1~~	~~1.4E-06~~	~~7.1E+00~~
~~Epichlorohydrin~~	~~106-89-8~~	~~1.2E-06~~	~~8.3E+00~~
~~Ethylene Oxide~~	~~75-21-8~~	~~1.0E-04~~	~~1.0E-01~~
~~Ethylene Dibromide~~	~~106-93-4~~	~~2.2E-04~~	~~4.5E-02~~
~~Formaldehyde~~	~~50-00-0~~	~~1.3E-05~~	~~7.7E-01~~
~~Heptachlor~~	~~76-44-8~~	~~1.3E-03~~	~~7.7E-03~~
~~Heptachlor Epoxide~~	~~1024-57-3~~	~~2.6E-03~~	~~3.8E-03~~
~~Hexachlorobenzene~~	~~118-74-1~~	~~4.9E-04~~	~~2.0E-02~~
~~Hexachlorobutadiene~~	~~87-68-3~~	~~2.0E-05~~	~~5.0E-01~~
~~Alpha hexachloro -cyclohexane~~	~~319-84-6~~	~~1.8E-03~~	~~5.6E-03~~
~~Beta hexachloro -cyclohexane~~	~~319-85-7~~	~~5.3E-04~~	~~1.9E-02~~
~~Gamma hexachloro -cyclohexane~~	~~58-89-9~~	~~3.8E-04~~	~~2.6E-02~~
~~Hexachlorocyclo -hexane, Technical~~		~~5.1E-04~~	~~2.0E-02~~
~~Hexachlorodibenzo -p-dioxin (1,2 Mixture)~~		~~1.3E+0~~	~~7.7E-06~~
~~Hexachloroethane~~	~~67-72-1~~	~~4.0E-06~~	~~2.5E+00~~
~~Hydrazine~~	~~302-01-2~~	~~2.9E-03~~	~~3.4E-03~~
~~Hydrazine Sulfate~~	~~302-01-2~~	~~2.9E-03~~	~~3.4E-03~~
~~3-Methylcholanthrene~~	~~56-49-5~~	~~2.7E-03~~	~~3.7E-03~~
~~Methyl Hydrazine~~	~~60-34-4~~	~~3.1E-04~~	~~3.2E-02~~
~~Methylene Chloride~~	~~75-09-2~~	~~4.1E-06~~	~~2.4E+00~~
~~4,4' Methylene bis 2 -chloroaniline~~	~~101-14-4~~	~~4.7E-05~~	~~2.1E-01~~
~~Nickel~~	~~7440-02-0~~	~~2.4E-04~~	~~4.2E-02~~
~~Nickel Refinery Dust~~	~~7440-02-0~~	~~2.4E-04~~	~~4.2E-02~~
~~Nickel Subsulfide~~	~~12035-72-2~~	~~4.8E-04~~	~~2.1E-02~~
~~2-Nitropropane~~	~~79-46-9~~	~~2.7E-02~~	~~3.7E-04~~

~~N-Nitroso-n-butylamine 924-16-3 1.6E-03 6.3E-03~~
~~N-Nitroso-n-methylurea 684-93-5 8.6E-02 1.2E-04~~
~~N-Nitrosodiethylamine 55-18-5 4.3E-02 2.3E-04~~
~~N-Nitrosopyrrolidine 930-55-2 6.1E-04 1.6E-02~~
~~Pentachloronitrobenzene 82-68-8 7.3E-05 1.4E-01~~
~~PCBs 1336-36-3 1.2E-03 8.3E-03~~
~~Pronamide 23950-58-5 4.6E-06 2.2E+00~~
~~Reserpine 50-55-5 3.0E-03 3.3E-03~~
~~2,3,7,8 Tetrachloro -dibenzo-p-dioxin 1746-01-6 4.5E+01 2.2E-07~~
~~1,1,2,2 Tetrachloroethane 79-34-5 5.8E-05 1.7E-01~~
~~Tetrachloroethylene 127-18-4 4.8E-07 2.1E+01~~
~~Thiourea 62-56-6 5.5E-04 1.8E-02~~
~~1,1,2 Trichloroethane 79-00-5 1.6E-05 6.3E-01~~
~~Trichloroethylene 79-01-6 1.3E-06 7.7E+00~~
~~2,4,6 Trichlorophenol 88-06-2 5.7E-06 1.8E+00~~
~~Toxaphene 8001-35-2 3.2E-04 3.1E-02~~
~~Vinyl Chloride 75-01-4 7.1E-06 1.4E+00~~
]

R315-266-[~~605~~]1005. Appendix VI to Rule R315-266 -- Stack Plume Rise.

Appendix VI of 40 CFR 266, 2015 edition, is [~~adopted and~~]incorporated by reference.

R315-266-[~~606~~]1006. Appendix VII to Rule R315-266 -- Health-Based Limits for Exclusion of Waste-Derived Residues*.

Table 7		
Metals-TCLP Extract Concentration Limits		
Constituent	CAS No.	Concentration limits (mg/L)
Antimony	7440-36-0	1xE + 00
Arsenic	7440-38-2	5xE + 00
Barium	7440-39-3	1xE + 02
Beryllium	7440-41-7	7xE−03
Cadmium	7440-43-9	1xE + 00
Chromium	7440-47-3	5xE + 00
Lead	7439-92-1	5xE + 00
Mercury	7439-97-6	2xE−01
Nickel	7440-02-0	7xE + 01
Selenium	7782-49-2	1xE + 00
Silver	7440-22-4	5xE + 00
Thallium	7440-28-0	7xE + 00
Nonmetals-Residue Concentration Limits		
Constituent	CAS No.	Concentration limits for residues (mg/kg)
Acetonitrile	75-05-8	2xE−01
Acetophenone	98-86-2	4xE + 00
Acrolein	107-02-8	5xE−01
Acrylamide	79-06-1	2xE−04
Acrylonitrile	107-13-1	7xE−04
Aldrin	309-00-2	2xE−05
Allyl alcohol	107-18-6	2xE−01
Aluminum phosphide	20859-73-8	1xE−02
Aniline	62-53-3	6xE−02
Barium cyanide	542-62-1	1xE + 00
Benz(a)anthracene	56-55-3	1xE−04
Benzene	71-43-2	5xE−03
Benzidine	92-87-5	1xE−06
Bis(2-chloroethyl) ether	111-44-4	3xE−04
Bis(chloromethyl) ether	542-88-1	2xE−06
Bis(2-ethylhexyl) phthalate	117-81-7	3xE + 01
Bromoform	75-25-2	7xE−01
Calcium cyanide	592-01-8	1xE−06
Carbon disulfide	75-15-0	4xE + 00
Carbon tetrachloride	56-23-5	5xE−03
Chlordane	57-74-9	3xE−04

Chlorobenzene	108-90-7	1xE + 00
Chloroform	67-66-3	6xE−02
Copper cyanide	544-92-3	2xE−01
Cresols (Cresylic acid)	1319-77-3	2xE + 00
Cyanogen	460-19-5	1xE + 00
DDT	50-29-3	1xE−03
Dibenz(a, h)-anthracene	53-70-3	7xE−06
1,2-Dibromo-3-chloropropane	96-12-8	2xE−05
p-Dichlorobenzene	106-46-7	7.5xE−02
Dichlorodifluoromethane	75-71-8	7xE + 00
1,1-Dichloroethylene	75-35-4	5xE−03
2,4-Dichlorophenol	120-83-2	1xE−01
1,3-Dichloropropene	542-75-6	1xE−03
Dieldrin	60-57-1	2xE−05
Diethyl phthalate	84-66-2	3xE + 01
Diethylstilbesterol	56-53-1	7xE−07
Dimethoate	60-51-5	3xE−02
2,4-Dinitrotoluene	121-14-2	5xE−04
Diphenylamine	122-39-4	9xE−01
1,2-Diphenylhydrazine	122-66-7	5xE−04
Endosulfan	115-29-7	2xE−03
Endrin	72-20-8	2xE−04
Epichlorohydrin	106-89-8	4xE−02
Ethylene dibromide	106-93-4	4xE−07
Ethylene oxide	75-21-8	3xE−04
Fluorine	7782-41-4	4xE + 00
Formic acid	64-18-6	7xE + 01
Heptachlor	76-44-8	8xE−05
Heptachlor epoxide	1024-57-3	4xE−05
Hexachlorobenzene	118-74-1	2xE−04
Hexachlorobutadiene	87-68-3	5xE−03
Hexachlorocyclopentadiene	77-47-4	2xE−01
Hexachlorodibenzo-p-dioxins	19408-74-3	6xE−08
Hexachloroethane	67-72-1	3xE−02
Hydrazine	302-01-1	1xE−04
Hydrogen cyanide	74-90-8	7xE−05
Hydrogen sulfide	7783-06-4	1xE−06
Isobutyl alcohol	78-83-1	1xE + 01
Methomyl	16752-77-5	1xE + 00
Methoxychlor	72-43-5	1xE−01
3-Methylcholanthrene	56-49-5	4xE−05
4,4′-Methylenebis (2-chloroaniline)	101-14-4	2xE−03
Methylene chloride	75-09-2	5xE−02
Methyl ethyl ketone (MEK)	78-93-3	2xE + 00
Methyl hydrazine	60-34-4	3xE−04
Methyl parathion	298-00-0	2xE−02
Naphthalene	91-20-3	1xE + 01
Nickel cyanide	557-19-7	7xE−01
Nitric oxide	10102-43-9	4xE + 00
Nitrobenzene	98-95-3	2xE−02
N-Nitrosodi-n-butylamine	924-16-3	6xE−05
N-Nitrosodiethylamine	55-18-5	2xE−06
N-Nitroso-N-methylurea	684-93-5	1xE−07
N-Nitrosopyrrolidine	930-55-2	2xE−04
Pentachlorobenzene	608-93-5	3xE−02
Pentachloronitrobenzene (PCNB)	82-68-8	1xE−01
Pentachlorophenol	87-86-5	1xE + 00
Phenol	108-95-2	1xE + 00

Phenylmercury acetate	62-38-4	3xE−03
Phosphine	7803-51-2	1xE−02
Polychlorinated biphenyls, N.O.S	1336-36-3	5xE−05
Potassium cyanide	151-50-8	2xE + 00
Potassium silver cyanide	506-61-6	7xE + 00
Pronamide	23950-58-5	3xE + 00
Pyridine	110-86-1	4xE−02
Reserpine	50-55-5	3xE−05
Selenourea	630-10-4	2xE−01
Silver cyanide	506-64-9	4xE + 00
Sodium cyanide	143-33-9	1xE + 00
Strychnine	57-24-9	1xE−02
1,2,4,5-Tetrachlorobenzene	95-94-3	1xE−02
1,1,2,2-tetrachloroethane	79-34-5	2xE−03
Tetrachloroethylene	127-18-4	7xE−01
2,3,4,6-Tetrachlorophenol	58-90-2	1xE−02
Tetraethyl lead	78-00-2	4xE−06
Thiourea	62-56-6	2xE−04
Toluene	108-88-3	1xE + 01
Toxaphene	8001-35-2	5xE−03
1,1,2-Trichloroethane	79-00-5	6xE−03
Trichloroethylene	79-01-6	5xE−03
Trichloromonofluoromethane	75-69-4	1xE + 01
2,4,5-Trichlorophenol	95-95-4	4xE + 00
2,4,6-Trichlorophenol	88-06-2	4xE + 00
Vanadium pentoxide	1314-62-1	7xE−01
Vinyl chloride	75-01-4	2xE−03
*1: The health-based concentration limits for appendix VIII Rule R315-261 constituents for which a health-based concentration is not provided is 2xE−06 mg/kg.		
2: The levels specified in this appendix and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of this appendix are administratively stayed under the condition, for those constituents specified in Subsection R315-266-112(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in Section R315-268-43 for FO39 nonwastewaters. See Subsection R315-266-112(b)(2)(i).		

~~[Table~~

~~Metals -- TCLP Extract Concentration Limits.~~

~~Constituent~~	~~CAS No.~~	~~Concentration limits (mg/L)~~
~~Antimony~~	~~7440-36-0~~	~~1xE+00~~
~~Arsenic~~	~~7440-38-2~~	~~5xE+00~~
~~Barium~~	~~7440-39-3~~	~~1xE+02~~
~~Beryllium~~	~~7440-41-7~~	~~7xE-03~~
~~Cadmium~~	~~7440-43-9~~	~~1xE+00~~
~~Chromium~~	~~7440-47-3~~	~~5xE+00~~
~~Lead~~	~~7439-92-1~~	~~5xE+00~~
~~Mercury~~	~~7439-97-6~~	~~2xE-01~~
~~Nickel~~	~~7440-02-0~~	~~7xE+01~~
~~Selenium~~	~~7782-49-2~~	~~1xE+00~~
~~Silver~~	~~7440-22-4~~	~~5xE+00~~
~~Thallium~~	~~7440-28-0~~	~~7xE+00~~

~~Nonmetals -- Residue Concentration Limits~~

~~Constituent~~	~~CAS No.~~	~~Concentration limits for residues (mg/kg)~~
~~Acetonitrile~~	~~75-05-8~~	~~2xE-01~~
~~Acetophenone~~	~~98-86-2~~	~~4xE+00~~
~~Acrolein~~	~~107-02-8~~	~~5xE-01~~
~~Acrylamide~~	~~79-06-1~~	~~2xE-04~~
~~Acrylonitrile~~	~~107-13-1~~	~~7xE-04~~
~~Aldrin~~	~~309-00-2~~	~~2xE-05~~

Allyl alcohol	107-18-6	2xE-01
Aluminum phosphide	20859-73-8	1xE-02
Aniline	62-53-3	6xE-02
Barium cyanide	542-62-1	1xE+00
Benz(a)anthracene	56-55-3	1xE-04
Benzene	71-43-2	5xE-03
Benzidine	92-87-5	1xE-06
Bis(2-chloroethyl) ether	111-44-4	3xE-04
Bis(chloroethyl) ether	542-88-1	2xE-06
Bis(2-ethylhexyl) phthalate	117-81-7	3xE+01
Bromoform	75-25-2	7xE-01
Calcium cyanide	592-01-8	1xE-06
Carbon disulfide	75-15-0	4xE+00
Carbon tetrachloride	56-23-5	5xE-03
Chlordane	57-74-9	3xE-04
Chlorobenzene	108-90-7	1xE+00
Chloroform	67-66-3	6xE-02
Copper cyanide	544-92-3	2xE-01
Cresols (Cresylic acid)	1319-77-3	2xE+00
Cyanogen	460-19-5	1xE+00
DDT	50-29-3	1xE-03
Dibenz(a, h) anthracene	53-70-3	7xE-06
1,2 Dibromo 3 -chloropropane	96-12-8	2xE-05
p-Dichlorobenzene	106-46-7	7.5xE-02
Dichlorodifluoromethane	75-71-8	7xE+00
1,1 Dichloroethylene	75-35-4	5xE-03
2,4 Dichlorophenol	120-83-2	1xE-01
1,3 Dichloropropene	542-75-6	1xE-03
Dieldrin	60-57-1	2xE-05
Diethyl phthalate	84-66-2	3xE+01
Diethylstilbesterol	56-53-1	7xE-07
Dimethoate	60-51-5	3xE-02
2,4 Dinitrotoluene	121-14-2	5xE-04
Diphenylamine	122-39-4	9xE-01
1,2 Diphenylhydrazine	122-66-7	5xE-04
Endosulfan	115-29-7	2xE-03
Endrin	72-20-8	2xE-04
Epichlorohydrin	106-89-8	4xE-02
Ethylene dibromide	106-93-4	4xE-07
Ethylene oxide	75-21-8	3xE-04
Fluorine	7782-41-4	4xE+00
Formic acid	64-18-6	7xE+01
Heptachlor	76-44-8	8xE-05
Heptachlor epoxide	1024-57-3	4xE-05
Hexachlorobenzene	118-74-1	2xE-04
Hexachlorobutadiene	87-68-3	5xE-03
Hexachlorocyclopentadiene	77-47-4	2xE-01
Hexachlorodibenzo p -dioxins	19408-74-3	6xE-08
Hexachloroethane	67-72-1	3xE-02
Hydrazine	302-01-1	1xE-04
Hydrogen cyanide	74-90-8	7xE-05
Hydrogen sulfide	7783-06-4	1xE-06
Isobutyl alcohol	78-83-1	1xE+01
Methomyl	16752-77-5	1xE+00
Methoxychlor	72-43-5	1xE-01
3-Methylcholanthrene	56-49-5	4xE-05
4,4' Methylenebis (2-chloroaniline)	101-14-4	2xE-03
Methylene chloride	75-09-2	5xE-02
Methyl ethyl ketone (MEK)	78-93-3	2xE+00
Methyl hydrazine	60-34-4	3xE-04
Methyl parathion	298-00-0	2xE-02
Naphthalene	91-20-3	1xE+01
Nickel cyanide	557-19-7	7xE-01
Nitric oxide	10102-43-9	4xE+00
Nitrobenzene	98-95-3	2xE-02
N-Nitrosodi-n -butylamine	924-16-3	6xE-05
N-Nitrosodiethylamine	55-18-5	2xE-06
N-Nitroso-N-methylurea	684-93-5	1xE-07
N-Nitrosopyrrolidine	930-55-2	2xE-04
Pentachlorobenzene	608-93-5	3xE-02
Pentachloronitrobenzene (PCNB)	82-68-8	1xE-01

~~Pentachlorophenol 87-86-5 1xE+00~~
~~Phenol 108-95-2 1xE+00~~
~~Phenylmercury acetate 62-38-4 3xE-03~~
~~Phosphine 7803-51-2 1xE-02~~
~~Polychlorinated biphenyls, N.O.S 1336-36-3 5xE-05~~
~~Potassium cyanide 151-50-8 2xE+00~~
~~Potassium silver cyanide 506-61-6 7xE+00~~
~~Pronamide 23950-58-5 3xE+00~~
~~Pyridine 110-86-1 4xE-02~~
~~Reserpine 50-55-5 3xE-05~~
~~Selenourea 630-10-4 2xE-01~~
~~Silver cyanide 506-64-9 4xE+00~~
~~Sodium cyanide 143-33-9 1xE+00~~
~~Strychnine 57-24-9 1xE-02~~
~~1,2,4,5 Tetrachlorobenzene 95-94-3 1xE-02~~
~~1,1,2,2 tetrachloroethane 79-34-5 2xE-03~~
~~Tetrachloroethylene 127-18-4 7xE-01~~
~~2,3,4,6 Tetrachlorophenol 58-90-2 1xE-02~~
~~Tetraethyl lead 78-00-2 4xE-06~~
~~Thiourea 62-56-6 2xE-04~~
~~Toluene 108-88-3 1xE+01~~
~~Toxaphene 8001-35-2 5xE-03~~
~~1,1,2 Trichloroethane 79-00-5 6xE-03~~
~~Trichloroethylene 79-01-6 5xE-03~~
~~Trichloromonofluoromethane 75-69-4 1xE+01~~
~~2,4,5 Trichlorophenol 95-95-4 4xE+00~~
~~2,4,6 Trichlorophenol 88-06-2 4xE+00~~
~~Vanadium pentoxide 1314-62-1 7xE-01~~
~~Vinyl chloride 75-01-4 2xE-03~~

~~*Note 1: The health based concentration limits for appendix VIII Rule R315-261 constituents for which a health based concentration is not provided below is 2xE-06 mg/kg.~~
~~Note 2: The levels specified in this appendix and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of this appendix are administratively stayed under the condition, for those constituents specified in Subsection R315-266-112(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in Section R315-268-43 for F039 nonwastewaters. See Subsection R315-266-112(b)(2)(i).~~
]

R315-266-[~~607~~]1007. Appendix VIII to Rule R315-266 -- Organic Compounds for Which Residues Shall Be Analyzed.

Table 8	
Volatiles	Semivolatiles
Benzene	Bis(2-ethylhexyl)phthalate
Toluene	Naphthalene
Carbon tetrachloride	Phenol
Chloroform	Diethyl phthalate
Methylene chloride	Butyl benzyl phthalate
Trichloroethylene	2,4-Dimethylphenol
Tetra chloroethylene	o-Dichlorobenzene
1,1,1-Trichloroethane	m-Dichlorobenzene
Chlorobenzene	p-Dichlorobenzene
cis-1,4-Dichloro-2-butene	Hexachlorobenzene
Bromochloromethane	2,4,6-Trichlorophenol
Bromodichloromethane	Fluoranthene
Bromoform	o-Nitrophenol
Bromomethane	1,2,4-Trichlorobenzene
Methylene bromide	o-Chlorophenol
Methyl ethyl ketone	Pentachlorophenol
	Pyrene
	Dimethyl phthalate

	Mononitrobenzene
	2,6-Toluene diisocyanate
	Polychlorinated dibenzo-p-dioxins[1]
	Polychlorinated dibenzo-furans[1]
1. Analyses for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans are required only for residues collected from areas downstream of the combustion chamber, for example: ductwork, boiler tubes, heat exchange surfaces, air pollution control devices.	
Note to the table: Analysis is not required for those compounds that do not have an established F039 nonwastewater concentration limit.	

[~~Table~~

~~Volatiles~~

~~Benzene~~
~~Toluene~~
~~Carbon tetrachloride~~
~~Chloroform~~
~~Methylene chloride~~
~~Trichloroethylene~~
~~Tetra chloroethylene~~
~~1,1,1 Trichloroethane~~
~~Chlorobenzene~~
~~cis 1,4 Dichloro 2 butene~~
~~Bromochloromethane~~
~~Bromodichloromethane~~
~~Bromoform~~
~~Bromomethane~~
~~Methylene bromide~~
~~Methyl ethyl ketone~~

~~Semivolatiles~~

~~Bis(2 ethylhexyl)phthalate~~
~~Naphthalene~~
~~Phenol~~
~~Diethyl phthalate~~
~~Butyl benzyl phthalate~~
~~2,4 Dimethylphenol~~
~~o Dichlorobenzene~~
~~m Dichlorobenzene~~
~~p Dichlorobenzene~~
~~Hexachlorobenzene~~
~~2,4,6 Trichlorophenol~~
~~Fluoranthene~~
~~o Nitrophenol~~
~~1,2,4 Trichlorobenzene~~
~~o Chlorophenol~~
~~Pentachlorophenol~~
~~Pyrene~~
~~Dimethyl phthalate~~
~~Mononitrobenzene~~
~~2,6 Toluene diisocyanate~~
~~Polychlorinated dibenzo p dioxins(1)~~
~~Polychlorinated dibenzo furans(1)~~

~~(1) Analyses for polychlorinated dibenzo p dioxins and polychlorinated dibenzo furans are required only for residues collected from areas downstream of the combustion chamber, e.g., ductwork, boiler tubes, heat exchange surfaces, air pollution control devices, etc.~~
~~Note to Appendix VIII: Analysis is not required for those compounds that do not have an established F039 nonwastewater concentration limit.~~
]

R315-266-[~~608~~]1008. Appendix IX to Rule R315-266 -- Methods Manual for Compliance With the BIF Regulations.

Appendix IX of 40 CFR 266, 2015 edition, is [~~adopted and~~]incorporated by reference.

R315-266-[~~609~~]1009. Appendix XI to Rule R315-266 -- Lead-Bearing Materials That May Be Processed in Exempt Lead Smelters.

A. Exempt Lead-Bearing Materials If Generated or Originally Produced By Lead-Associated Industries[1][~~(1)~~]

Acid dump or fill solids

Sump mud
Materials from laboratory analyses
Acid filters
Baghouse bags
Clothing, [~~e.g.,~~]for example coveralls, aprons, shoes, hats, gloves
Sweepings
Air filter bags and cartridges
Respiratory cartridge filters
Shop abrasives
Stacking boards
Waste shipping containers, [~~e.g.,~~]for example cartons, bags, drums, cardboard
Paper hand towels
Wiping rags and sponges
Contaminated pallets
Water treatment sludges, filter cakes, residues, and solids
Emission control dusts, sludges, filter cakes, residues, and solids from lead-associated industries, [~~e.g.,~~]for example K069 and D008 wastes
Spent grids, posts, and separators
Spent batteries
Lead oxide and lead oxide residues
Lead plates and groups
Spent battery cases, covers, and vents
Pasting belts
Water filter media
Cheesecloth from pasting rollers
Pasting additive bags
Asphalt paving materials
B. Exempt Lead-Bearing Materials If Generated or Originally Produced By Any Industry
Charging jumpers and clips
Platen abrasive
Fluff from lead wire and cable casings
Lead-based pigments and compounding pigment dust
(1) Lead-associated industries are lead smelters, lead-acid battery manufacturing, and lead chemical manufacturing, for example[~~e.g.,~~] manufacturing of lead oxide or other lead compounds.

R315-266-[~~610~~]1010. Appendix XII to Rule R315-266 -- Nickel or Chromium-Bearing Materials That May Be Processed in Exempt Nickel-Chromium Recovery Furnaces.

A. Exempt Nickel or Chromium-Bearing Materials if Generated by Manufacturers or Users of Nickel, Chromium, or Iron
Baghouse bags
Raney nickel catalyst
Floor sweepings
Air filters
Electroplating bath filters
Wastewater filter media
Wood pallets
Disposable clothing such as[~~(~~]coveralls, aprons, hats, and gloves[~~)~~]
Laboratory samples and spent chemicals
Shipping containers and plastic liners from containers or vehicles used to transport nickel or chromium-containing wastes
Respirator cartridge filters
Paper hand towels
B. Exempt Nickel or Chromium-Bearing Materials if Generated by Any Industry
Electroplating wastewater treatment sludges, [~~(~~]F006[~~)~~]
Solutions containing Nickel, chromium or both
Nickel, chromium, and iron catalysts
Nickel-cadmium and nickel-iron batteries
Filter cake from wet scrubber system water treatment plants in the specialty steel industry[1][~~(1)~~]
Filter cake from nickel-chromium alloy pickling operations[1][~~(1)~~]
(1) If a hazardous waste under an authorized [~~S~~]state program.

R315-266-[~~611~~]1011. Appendix XIII to Rule R315-266 -- Mercury Bearing Wastes That May Be Processed in Exempt Mercury Recovery Units.

These are exempt mercury[-] bearing materials with less than 500 ppm of Rule R315-261, appendix VIII organic constituents if generated by manufacturers or users of mercury or mercury products.

1. Activated carbon
2. Decomposer graphite
3. Wood
4. Paper
5. Protective clothing
6. Sweepings
7. Respiratory cartridge filters
8. Cleanup articles
9. Plastic bags and other contaminated containers
10. Laboratory and process control samples
11. K106 and other wastewater treatment plant sludge and filter cake
12. Mercury cell sump and tank sludge
13. Mercury cell process solids
14. Recoverable levels of mercury contained in soil

KEY: hazardous waste
Date of Last Change: [~~January 13,~~] 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-270**	**Filing ID: 57499**

Agency Information

1. Title catchline:	Environmental Quality, Waste Management and Radiation Control, Waste Management	
Building:	Multi Agency State Office Building	
Street address:	195 N 1950 W	
City, state:	Salt Lake City, UT	
Mailing address:	PO Box 144880	
City, state and zip:	Salt Lake City, UT 84114-4880	
Contact persons:		
Name:	**Phone:**	**Email:**
Tom Ball	385-454-5574	tball@utah.gov
Kari Lundeen	385-499-4923	klundeen@utah.gov
Please address questions regarding information on this notice to the persons listed above.		

General Information

2. Rule or section catchline:
R315-270. Hazardous Waste Permit Program
4. Purpose of the new rule or reason for the change:
In July of 2024, the EPA finalized rulemaking that integrates e-Manifest with hazardous waste exports and other manifest related reports, PCB manifest amendments, and technical corrections. This rulemaking amended federal regulations found in 40 CFR 270. In October of 2024, the EPA finalized regulations for the management of certain hydrofluorocarbons and substitutes (ignitable spent refrigerants) under the American Innovation and Manufacturing Act of 2020. This rulemaking included amendments to rules regarding the recycling and disposal hydrofluorocarbons.

As an authorized state, Utah is required to maintain a program that is equivalent to the federal program and therefore, must amend Rule R315-270 to conform with the federal regulations.

5. Summary of the new rule or change:

Subsection R315-270-1(c)(2)(ix) adds recyclers of ignitable spent refrigerants to the list of persons not required to get a hazardous waste permit.

Subsection R315-270-30(l)(7) is being amended to update the requirements for submission of manifest discrepancy reports and to add requirements for unmanifested waste reports.

Additionally, the Division of Waste Management and Radiation Control, Waste Management (Division) is correcting typographical and formatting errors in Rule R315-270.

Fiscal Information

6. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A. State budget:

It is not anticipated that this rulemaking will result in any cost or savings to the state budget because it does not add or remove any requirements for state agencies.

B. Local governments:

It is not anticipated that this rulemaking will result in any cost or savings to local governments because there are no local governments in Utah that recycle ignitable spent refrigerants or would need to submit manifest discrepancy or unmanifested waste reports.

C. Small businesses ("small business" means a business employing 1-49 persons)**:**

It is not anticipated that this rulemaking will result in any costs to small businesses that must comply with this rule because the amendments do not add any new requirements for small businesses in Utah.

It is anticipated that the amended rules could result in cost savings resulting from the move to submit reports electronically, however, it is not possible to determine how many facilities will need to submit manifest discrepancy reports or unmanifested waste reports because these reports are only submitted when required and not on a regular basis so it is not possible for the Division to determine the cost savings that may result.

D. Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

It is not anticipated that this rulemaking will result in any costs to non-small businesses that must comply with this rule because the amendments do not add any new requirements for non-small businesses in Utah.

It is anticipated that the amended rules could result in cost savings resulting from the move to submit reports electronically, however, it is not possible to determine how many facilities will need to submit manifest discrepancy reports or unmanifested waste reports because these reports are only submitted when required and not on a regular basis so it is not possible for the Division to determine the cost savings that may result.

E. Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

It is not anticipated that this rulemaking will result in any costs to small businesses, non-small businesses, state, or local governments that must comply with this rule because the amendments do not add any new requirements for small businesses, non-small businesses, state, or local governments in Utah.

It is anticipated that the amended rules could result in cost savings resulting from the move to submit reports electronically, however, it is not possible to determine how many facilities will need to submit manifest discrepancy reports or unmanifested waste reports because these reports are only submitted when required and not on a regular basis so it is not possible for the Division to determine the cost savings that may result.

F. Compliance costs for affected persons:
It is not anticipated that there will be any additional compliance costs above those costs that are already in place for affected persons who must comply with this rule.

G. Regulatory Impact Summary Table (This table includes only fiscal impacts the agency was able to measure. If the agency could not estimate an impact, it is excluded from this table but described in boxes A through F.)

Regulatory Impact Summary Table					
Fiscal Cost	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Cost	**$0**	**$0**	**$0**	**$0**	**$0**
Fiscal Benefits	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**
State Budget	$0	$0	$0	$0	$0
Local Governments	$0	$0	$0	$0	$0
Small Businesses	$0	$0	$0	$0	$0
Non-Small Businesses	$0	$0	$0	$0	$0
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$0**	**$0**	**$0**	**$0**	**$0**

H. Department head comments on fiscal impact and approval of regulatory impact analysis:
The Executive Director of the Department of Environmental Quality, Tim Davis, has reviewed and approved this regulatory impact analysis.

Citation Information

7. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:		
Section 19-6-105	Section 19-6-106	

Public Notice Information

9. The public may submit written or oral comments to the agency identified in box 1.	
A. Comments will be accepted until:	10/31/2025

10. This rule change MAY become effective on:	11/17/2025
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

Agency head or designee and title:	Douglas J. Hansen, Director	Date:	09/12/2025

R315. Environmental Quality, Waste Management and Radiation Control, Waste Management.
R315-270. Hazardous Waste Permit Program.
R315-270-1. Hazardous Waste Permit Program -- Purpose and Scope of [~~This~~]Rule R315-270.

(a) No person shall own, construct, modify, or operate any facility for treating, storing, or disposing of hazardous waste without first submitting, and receiving the approval of the director for, a hazardous waste permit for that facility. However, any person owning or operating a facility on or before November 19, 1980, who has given timely notification as required by Section 3010 of the Resource Conservation and Recovery Act (RCRA) of 1976, 42 U.S.C., Section 6921, et seq., and who has submitted a proposed hazardous waste permit as required by

Section R315-270-1 and Section 19-6-108 for that facility, may continue to operate that facility without violating Section R315-270-1 until the permit is approved or disapproved pursuant to Section R315-270-1.

(b)(1) The director shall review each proposed hazardous waste permit application to determine whether the application will be in accord with Rules R315-260 through R315-266, R315-268, R315-270, and R315-273, and Section 19-6-108 and, on that basis, shall approve or disapprove the application within the applicable time period specified in Section 19-6-108. If, after the receipt of plans, specifications, or other information required under Rule R315-270 and Section 19-6-108 and within the applicable time period of Section 19-6-108, the director determines that the proposed construction, installation or establishment or any part of it will not be in accord with the requirements of Rule R315-270 or other applicable rules, the director shall issue an order prohibiting the construction, installation, or establishment of the proposal in whole or in part. The date of submission shall be the date that the required information is provided to the director as required by Rule R315-270.

(2) Any permit application that does not meet the requirements of Rules R315-260 through R315-266, R315-268, R315-270, and R315-273 shall be disapproved within the applicable time period specified in Section 19-6-108. If within the applicable time period specified in Section 19-6-108 the director fails to approve or disapprove the permit application or to request the submission of any additional information or modification to the application, the application may not be considered approved but the applicant may petition the director for a decision or seek judicial relief requiring a decision of approval or disapproval.

(3) An application for approval of a hazardous waste permit consists of two parts, part A and part B. For an existing facility, the requirement is satisfied by submitting only part A of the application until the date the director sets for each individual facility for submitting part B of the application, which date shall be in no case less than six months after the director gives notice to a particular facility that it shall submit part B of the application.

(c) Scope of the hazardous waste permit requirement. Section 19-6-108 requires a permit for the "treatment," "storage," and "disposal" of any "hazardous waste" as identified or listed in Rule R315-261. The terms "treatment," "storage," "disposal," and "hazardous waste" are defined in Section R315-270-2. Owners and operators of hazardous waste management units shall have permits during the active life, including the closure period, of the unit. Owners and operators of surface impoundments, landfills, land treatment units, and waste pile units that received waste after July 26, 1982, or that certified closure, in accordance with Section R315-265-115, after January 26, 1983, shall have post-closure permits, unless they demonstrate closure by removal or decontamination as provided under Subsections R315-270-1(c)(5) and R315-270-1(c)(6), or get an enforceable document in lieu of a post-closure permit, as provided under Subsection R315-270-1(c)(7). If a post-closure permit is required, the permit shall address applicable Rule R315-264 groundwater monitoring, unsaturated zone monitoring, corrective action, and post-closure care requirements. The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to get a post-closure permit under Section R315-270-1.

(1) Specific inclusions. Owners and operators of certain facilities require hazardous waste permits as well as permits under other programs for certain aspects of the facility operation. Hazardous waste permits are required for the [~~following~~]the activities listed in Subsections R315-270-1(c)(1)(i) and R315-270-1(c)(1)(ii):

(i) Injection wells that dispose of hazardous waste, and associated surface facilities that treat, store, or dispose of hazardous waste. However, the owner and operator with a Utah or federal UIC permit, shall be considered to have a "permit by rule" for the injection well itself if they comply with the requirements of Subsection R315-270-60(b).

(ii) Treatment, storage, or disposal of hazardous waste at facilities requiring a National Pollutant Discharge Elimination System (NPDES) permit. However, the owner and operator of a publicly owned treatment works receiving hazardous waste shall be considered to have a "permit by rule" for that waste if they comply with the requirements of Subsection R315-270-60(c).

(2) Specific exclusions and exemptions. [~~The following~~]Persons listed in Subsections R315-270-1(c)(2)(i) through R315-270-1(c)(2)(ix) are not required to get a hazardous waste permit.

(i) A generator who accumulates hazardous waste on-site in compliance with the conditions for exemption provided in Sections R315-262-14, R315-262-15, R315-262-16, and R315-262-17.

(ii) A farmer who disposes of hazardous waste pesticides from their own use as provided in Section R315-262-70.

(iii) A person who owns or operates facilities solely for the treatment, storage, or disposal of hazardous waste excluded from regulation under Rule R315-270 by Section R315-261-4 or Section R315-262-14, very small quantity generator exemption.

(iv) An owner or operator of totally enclosed treatment facilities as defined in Section R315-260-10.

(v) An owner and operator of one or more elementary neutralization units or wastewater treatment units as defined in Section R315-260-10.

(vi) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of Section R315-262-30 at a transfer facility for a period of ten days or less.

(vii) A person adding absorbent material to waste in a container, as defined in Section R315-260-10, and a person adding waste to absorbent material in a container, these actions shall occur waste is first placed in the container, and Subsection R315-264-17(b) and Sections R315-264-171 and R315-264-172 are complied with.

(viii) Universal waste handlers and universal waste transporters, as defined in Section R315-260-10, managing the wastes listed in Subsections R315-270-1(c)(2)(viii)(A) through R315-270-1(c)(2)(viii)(E). These handlers are subject to regulation under Rule R315-273 if handling the [~~following~~]universal wastes listed in Subsections R315-270-1(c)(2)(viii)(A) through R315-270-1(c)(2)(viii)(E):

(A) batteries as described in Section R315-273-2;

(B) pesticides as described in Section R315-273-3;

(C) mercury-containing equipment as described in Section R315-273-4;

(D) lamps as described in Section R315-273-5; and

(E) aerosol cans as described in Section R315-273-6.

(ix) [~~Reserved~~]Recyclers of ignitable spent refrigerants subject to regulation in accordance with Sections R315-266-600 through R315-266-602.

(3) Further exclusions.

(i) A person is not required to get a permit for treatment or containment activities taken during immediate response to any of the [~~following~~]situations listed in Subsections R315-270-1(c)(3)(i)(A) through R315-270-1(c)(3)(i)(C):

(A) a discharge of a hazardous waste;

(B) an imminent and substantial threat of a discharge of hazardous waste; or

(C) a discharge of a material that, if discharged, becomes a hazardous waste.

(ii) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to the applicable requirements of Rule R315-270 for those activities.

(iii) In the case of emergency responses involving military munitions, the responding military emergency response specialist's organizational unit shall keep records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

(4) Permits for less than an entire facility. The director may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to each of the units at the facility. The interim status of any unit that has not been issued or denied a permit is not affected by the issuance or denial of a permit to any other unit at the facility.

(5) Closure by removal. Owners or operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination under Rule R315-265 standards shall get a post-closure permit unless they can demonstrate to the director that the closure met the standards for closure by removal or decontamination in Section R315-264-228, Subsection R315-264-280(e), or Section R315-264-258, respectively. The demonstration may be made [~~in the following ways~~]as detailed in Subsections R315-270-1(c)(5)(i) and R315-270-1(c)(5)(ii).

(i) If the owner or operator has submitted a part B application for a post-closure permit, the owner or operator may request a determination, based on information contained in the application, that Rule R315-264 closure by removal standards were met. If the director believes that Rule R315-264 standards were met, the director shall notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in Subsection R315-270-1(c)(6).

(ii) If the owner or operator has not submitted a part B application for a post-closure permit, the owner or operator may petition the director for a determination that a post-closure permit is not required because the closure met the applicable Rule R315-264 closure standards.

(A) The petition shall include data demonstrating that closure by removal or decontamination standards of Rule R315-264 were met.

(B) The director shall approve or deny the petition according to the procedures outlined in Subsection R315-270-1(c)(6).

(6) Procedures for closure equivalency determination.

(i) If a facility owner or operator seeks an equivalency demonstration under Subsection R315-270-1(c)(5), the director shall provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner or operator within 30 days from the date of the notice. The director shall also, in response to a request or at the director's discretion, hold a public hearing [~~when such~~]if a hearing might clarify one or more issues concerning the equivalence of the Rule R315-265 closure to a Rule R315-264 closure. The director shall give public notice of the hearing at least 30 days before it occurs. Public notice of the hearing may be given when that notice of the opportunity for the public to submit written comments is given, and the two notices may be combined.

(ii) The director shall determine whether the Rule R315-265 closure met the Rule R315-264 closure by removal or decontamination requirements within 90 days of its receipt. If the director finds that the closure did not meet the applicable Rule R315-264 standards, the director shall provide the owner or operator with a written statement of the reasons why the closure failed to meet Rule R315-264 standards. The owner or operator may submit additional information in support of an equivalency demonstration within 30 days after receiving the written statement. The director shall review any additional information submitted and make a final determination within 60 days.

(iii) If the director determines that the facility did not close in accordance with Rule R315-264 closure by removal standards, the facility is subject to post-closure permitting requirements.

(7) Enforceable documents for post-closure care. At the discretion of the director, an owner or operator may get, in lieu of a post-closure permit, an enforceable document imposing the requirements of Section R315-265-121. "Enforceable document" means an order, a permit, or other document issued by the director including a corrective action order issued by EPA under Section 3008(h), a CERCLA remedial action, or a closure or post-closure permit.

R315-270-30. Hazardous Waste Permit Program -- Conditions Applicable to [~~All~~]Each Permit[~~s~~].

The [~~following~~]conditions in Section R315-270-30 apply to [~~all~~]each hazardous waste facility permit[~~s~~], and shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to Rule R315-270[~~these regulations~~] shall be given in the permit.

(a) Duty to comply. The permittee shall comply with [~~all~~]the conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration [~~such~~]the noncompliance is authorized in an emergency permit[~~. (S~~], see Section R315-270-61[~~)~~]. Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of Sections 19-6-101 through 19-6-125 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(b) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit.

(c) Need to halt or reduce activity not a defense. It [~~shall~~]may not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity [~~in order~~]to maintain compliance with the conditions of this permit.

(d) In the event of noncompliance with the permit, the permittee shall take [~~all~~]reasonable steps to minimize releases to the environment, and shall carry out [~~such~~]those measures [~~as~~]that are reasonable to prevent significant adverse impacts on human health or the environment.

(e) Proper operation and maintenance. The permittee shall [~~at all times~~]properly operate and maintain [~~all~~]the facilities and systems of treatment and control, and related appurtenances, [~~which~~]that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only [~~when~~]if necessary to achieve compliance with the conditions of the permit.

(f) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property rights. The permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to provide information. The permittee shall furnish to the [~~D~~]director, within a reasonable time, any relevant information [~~which~~]that the [~~D~~]director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the [~~D~~]director, upon request, copies of records required to be kept by this permit.

(i) Inspection and entry. The permittee shall allow the [~~D~~]director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

(1) Enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records shall be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment, including monitoring and control equipment; practices; or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by Sections 19-6-101 through 19-6-125, any substances or parameters at any location.

(j) Monitoring and records.

(1) Samples and measurements taken for [~~the purpose of~~]monitoring shall be representative of the monitored activity.

(2) The permittee shall [~~retain~~]keep records of [~~all~~]any monitoring information, including [~~all~~]any calibration and maintenance records and [~~all~~]any original strip chart recordings for continuous monitoring instrumentation, copies of [~~all~~]the reports required by this permit, the certification required by Subsection R315-264-73(b)(9), and records of [~~all~~]the data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, certification, or application. This period may be extended by request of the [~~D~~]director at any time. The permittee shall maintain records from [~~all~~]any ground[-]water monitoring wells and associated ground[-]water surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

(3) Records for monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual[~~(~~]s[~~)~~] who performed the sampling or measurements;

(iii) The date[~~(~~]s[~~)~~] analyses were performed;

(iv) The individual[~~(~~]s[~~)~~] who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of [~~such~~]the analyses.

(k) Signatory requirements. [~~All~~]Any applications, reports, or information submitted to the [~~D~~]director shall be signed and certified[~~.~~ ~~S~~], see Section R315-270-11.

(l) Reporting requirements

(1) Planned changes. The permittee shall give notice to the [~~D~~]director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the [~~D~~]director of any planned changes in the permitted facility or activity [~~which~~]that may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility except as provided in Section R315-270-42, until:

(i) The permittee has submitted to the [~~D~~]director by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

(ii)(A) The [~~D~~]director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

(B) Within 15 days of the date of submission of the letter in Subsection R315-270-30(l)(2)(i), the permittee has not received notice from the [~~D~~]director of the [~~D~~]director's intent to inspect, prior inspection is waived and the permittee may [~~commence~~]begin treatment, storage, or disposal of hazardous waste.

(3) Transfers. This permit is not transferable to any person except after notice to the [~~D~~]director. The [~~D~~]director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate [~~such~~]other requirements as may be necessary under Sections 19-6-101 through 19-6-125[~~, S~~], see Section R315-270-40.

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance [~~which~~]that may endanger health or the environment orally within 24 hours from the time the permittee becomes aware of the circumstances, including:

(A) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

(B) Any information of a release or discharge of hazardous waste or of a fire or explosion from the HWM facility, [~~which~~]that could threaten the environment or human health outside the facility.

(ii) The description of the occurrence and its cause shall include:

(A) [~~N~~]name, address, and telephone number of the owner or operator;

(B) [~~N~~]name, address, and telephone number of the facility;

(C) [~~D~~]date, time, and type of incident;

(D) [~~N~~]name and quantity of material[~~(~~]s[~~)~~] involved;

(E) [~~T~~]the extent of injuries, if any;

(F) [~~A~~]an assessment of actual or potential hazards to the environment and human health outside the facility, where this [~~is applicable~~]applies; and

(G) [~~E~~]estimated quantity and disposition of recovered material that resulted from the incident.

(iii) A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The [~~D~~]director may waive the five-day written notice requirement in favor of a written report within 15 days.

(7) Manifest discrepancy report: If a significant discrepancy in a manifest is discovered, the permittee shall:[~~- attempt to reconcile the discrepancy. If not resolved within 15 days, the permittee shall submit a letter report, including a copy of the manifest, to the Director. See Section R315-264-72.~~]

(i) try to reconcile the discrepancy. If not resolved within 15 days, the permittee shall submit a letter report, including a copy of the manifest, to the director, see Section R315-264-72.

(ii) Beginning on December 1, 2025, try to reconcile the discrepancy. If not resolved within 20 days, the permittee shall immediately submit a Discrepancy Report to the EPA e-Manifest System describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue, see Section R315-264-72.

(8) Unmanifested waste report. A permittee shall:[~~- This report shall be submitted to the Director within 15 days of receipt of unmanifested waste. See Section R315-264-76~~]

(i) submit the Unmanifested Waste Report to the Director within 15 days of receipt of unmanifested waste, see Section R315-264-76.

(ii) Beginning on December 1, 2025, submit an electronic Unmanifested Waste Report in the EPA e-Manifest system for submission to the EPA within 15 days of receipt of unmanifested waste, see Section R315-264-76.

(9) Biennial report: A biennial report shall be submitted covering facility activities during odd numbered calendar years[~~. S~~], see Section R315-264-75.

(10) Other noncompliance. The permittee shall report [~~all~~]any instances of noncompliance not reported under Subsections R315-270-30(l)(4), R315-270-30(l)(5), and R315-270-30(l)(6), [~~at the time~~]when monitoring reports are submitted. The reports shall contain the information listed in Subsection[~~s~~] R315-270-30(l)(6).

(11) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the [~~D~~]director, it shall promptly submit [~~such~~]the facts or information.

(m) Information repository. The [~~D~~]director may require the permittee to establish and maintain an information repository at any time, based on the factors set forth in Subsection R315-124-33(b). The information repository shall be governed by the provisions in Subsections R315-124[~~-124~~]-33(c) through R315-124-33(f).

KEY: hazardous waste
Date of Last Change: [~~January 13,~~] 2025
Notice of Continuation: January 14, 2021
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R357-13**	**Filing ID: 57464**

Agency Information

1. Title catchline:	Governor, Economic Opportunity
Building:	World Trade Center
Street address:	60 E South Temple, Suite 300

WASTE MANAGEMENT AND RADIATION CONTROL BOARD
Executive Summary
REQUEST FOR A SITE-SPECIFIC TREATMENT VARIANCE
Energy*Solutions*, LLC
November 13, 2025

What is the issue before the Board?	On October 15, 2025, Energy*Solutions,* LLC submitted a request to the Director of the Division of Waste Management and Radiation Control for a one-time site-specific treatment variance from the Utah Hazardous Waste Management Rules. Energy*Solutions* seeks a variance from Utah Administrative Code R315-268-40(a)(3) to receive, treat, and macroencapsulate approximately 35 tons of incinerator ash waste that contains Resource Conservation and Recovery Act (RCRA) metals with elevated levels of dioxins and furans as Underlying Hazardous Constituents (UHCs).
What is the historical background or context for this issue?	Energy*Solutions* requests approval of this variance from Utah Admin. Code R315-268-40(a)(3) for incinerator ash waste that contains RCRA metals, dibenzo-p-dioxins, and dibenzofurans UHCs above their respective treatment standards denoted by the Universal Treatment Standards (UTS) in Utah Admin. Code R315-268-48 for treatment, macroencapsulation, and disposal within their Mixed Waste Landfill Cell (MWLC). All additional treatment standards and disposal requirements will be met except those for dioxin and furan UHCs prior to disposal. The basis for this variance is found under Utah Admin. Code R315-268-44(h)(2) and is as follows: requiring this waste stream to meet the dioxin and furan treatment standards is inappropriate based on the incineration and recycling processes that generate this waste even though such treatment of this waste stream is technically possible. Due to those processes all the ash waste contains dioxins and furans; however, in accordance with regulations, only a portion of the waste needs to be treated for those contaminants. The generator has previously analyzed each container of ash for metals contamination. If metals were below the toxicity characteristic concentrations described in 40 CFR 261.24 (Utah Admin. Code R315-261-24), the waste would be shipped to the Clive facility as Low-Level Radioactive Waste (LLRW) and disposed in the Class A Embankment. If metals were above the Toxicity Characteristic concentrations, then the waste would need to be treated for those metals as well as all UHCs, including dioxins and furans. It is inappropriate to require treatment of dioxin and furan contaminants in instances where characteristic metals are found in the waste when treatment is not required if metals are below characteristic concentrations in the waste. Furthermore, the stabilized ash was re-incinerated in an attempt to reduce the concentration of dioxins and furans in the ash. Re-incineration attempts resulted in very little reduction in concentrations of the dioxin and furan contaminants. It would be inappropriate to require this additional incineration step in order to attempt to meet the standards.

	Energy*Solutions* proposed to confirm that the waste meets all required treatment standards with the exception of the dioxin and furan UHC standards and then macroencapsulate the ash residue following approved requirements for MACRO in the State-issued Part B Permit. Macroencapsulation is an approved process that provides further isolation from the environment and will avoid unnecessary additional re-attempts of incineration of the waste. Final disposal of the waste will occur in the MWLC at the Energy*Solutions* Mixed Waste Facility. Energy*Solutions* has requested this variance a total of six times for generators dating back to June 27, 2018. The previous request (DSHW-2024-008730) was approved (DSHW-2025-000190) by the Waste Management and Radiation Control Board on January 9, 2025. A 30-day notice for public comment was published in the *Salt Lake Tribune*, the *Deseret News* and the *Tooele Transcript Bulletin* on October 29, 2025. The 30-day public comment period began October 30, 2025 and will end November 28, 2025. Documents related to this application can be reviewed on the Internet at https://deq.utah.gov/waste-management-and-radiation-control/waste-management-radiation-control-public-notices
What is the governing statutory or regulatory citation?	Variances are provided for in 19-6-111 of the Utah Solid and Hazardous Waste Act. This is a one-time site-specific variance from an applicable treatment standard as allowed by Utah Admin. Code R315-268-44.
Is Board action required?	No. This is an informational item before the Board.
What is the Division/Director's recommendation?	The Director will provide a recommendation following the public comment period at the next Board meeting.
Where can more information be obtained?	For technical questions, please contact Tyler Hegburg (385) 622-1875. For legal questions, please contact Bret Randall at (801) 536-0284.

DSHW-2025-005358
Attachment: DSHW-2025-005320

October 15, 2025 CD-2025-205

Mr. Doug Hansen
Director
Division of Waste Management and Radiation Control
195 North 1950 West
Salt Lake City, UT 84114-4880

RECEIVED
By Division of Waste Management and Radiation Control at 3:14 pm, Oct 16, 2025
DSHW-2025-005320

Subject: EPA ID Number UTD982598898 – Request for a Site-Specific Treatment Variance for Ash with Dioxin/Furan Contamination

Dear Mr. Hansen,

Energy*Solutions* hereby requests a variance from Utah Administrative Code (UAC) R315-268-40(a)(3) for an incinerator ash waste that contains Resource Conservation and Recovery Act (RCRA) metals and dioxins and furans as Underlying Hazardous Constituents (UHCs). This request is submitted in accordance with the requirements of UAC R315-260-19.

The regulatory requirement authorizing this request is found in UAC R315-268-44 which allows a site-specific variance from an applicable treatment standard provided that the following condition is met:

> *UAC R315-268-44268.44(h)(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible.*

Energy*Solutions* requests approval to receive ash from incinerator and metal recycling processes that contains RCRA metals and dibenzo-p-dioxin and dibenzofuran UHCs above their respective treatment standards denoted with the Universal Treatment Standards (UTS) in R315-268-48.

Requiring the waste to meet the dioxin and furan treatment standards is inappropriate based on the processes that generate the waste. Because of the waste generation processes, all of the ash waste contains dioxins and furans; however, in accordance with regulations, only a portion of the waste needs to be treated for those contaminants. The generator has previously analyzed each container of ash for metals contamination. If metals were below the toxicity characteristic concentrations described in 40 CFR 261.24 (R315-261-24), the waste would be shipped to the Clive facility as Low-Level Radioactive Waste (LLRW) and disposed in the Class A Embankment. If metals were above the Toxicity Characteristic concentrations, then the waste would need treated for those metals as well as all UHCs, including dioxins and furans. It is inappropriate to require treatment of dioxin and furan contaminants in instances where characteristic metals are found in the waste when treatment is not required if metals are below characteristic concentrations in the waste.

Furthermore, prior to receiving this variance, the stabilized ash was re-incinerated in an attempt to reduce the concentration of dioxins and furans in the ash. Re-incineration results in very little intrinsic value. It is inappropriate to require this additional incineration in order to attempt to meet the standards. This alternative option would allow the disposal of dioxin and furan

contaminated waste in the LLRW Embankment with no treatment. The variance requested herein would avoid that situation.

Energy*Solutions* proposes to macroencapsulate the ash waste in MACRO Vaults using requirements approved in the state-issued Part B Permit. This will provide isolation of the waste from the environment (relative to direct disposal in the Class A Embankment) and will avoid unnecessary additional incineration of the waste.

Energy*Solutions* requested this same variance 6 times for this generator in letters dated June 27, 2018 (CD18-0120), August 23, 2019 (CD19-0179), June 16, 2021 (CD-2021-072), July 20, 2022 (CD-2022-131), August 16, 2023 (CD-2023-163), and October 14, 2024 (CD-2024-215). The previous requests were approved by the Waste Management and Radiation Control Board on September 13, 2018, November 14, 2019, September 9, 2021, October 13, 2022, October 12, 2023, and January 9, 2025, respectively. Over the previous year this variance was in effect, the Energy*Solutions* Clive facility received approximately 32 tons (thirteen shipments) of this ash for treatment. Energy*Solutions* forecasts similar amounts of this waste over the next year.

This variance is being requested for approximately 35 tons of waste that will contain elevated concentrations of dioxins and furans.

Energy*Solutions* requests that a variance be granted to macroencapsulate ash waste that requires treatment for RCRA metals and dioxin and furan UHCs.

The name, phone number, and address of the person who should be contacted to notify Energy*Solutions* of decisions by the Director is:

Mr. Vern Rogers
Director of Regulatory Affairs
Energy*Solutions* LLC
299 South Main Street, Suite 1700
Salt Lake City, UT 84111
(801) 649-2000

Should there be any questions to this request, please contact me at (801) 649-2043.

Sincerely,

Digitally signed by
Steve D. Gurr
Date: 2025.10.15
10:14:08 -06'00'

Steve D. Gurr
Environmental Engineer and Manager

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.