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

Ted H. Sonnenburg, P.E., L.E.H.S.
Director

A meeting of the Waste Management and Radiation Control Board has been scheduled for February 12, 2026 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 appointment of Director Ted Sonnenburg to act as Executive Secretary to the Board, pursuant to Utah Code Section 19-6-107 of the Utah Solid and Hazardous Waste Act (**Board Action Item**)..... Tab 1

V. Approval of the meeting minutes for the January 8, 2026, Board Meeting (**Board Action Item**)..... Tab 2

VI. Petroleum Storage Tanks Update..... Tab 3

VII. Administrative Rules ..... Tab 4

A. Approval to proceed with formal rulemaking and public comment period on proposed changes to the Utah Administrative Code R315-101 of the Utah Solid and Hazardous Waste Rules (**Board Action Item**).

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VIII. Hazardous Waste Section ..... Tab 5

A. Approval of the Proposed Stipulated Compliance Order between the Director and Williams International Co., L.L.C. (**Board Action Item**).

IX. Director's Report.

X. Executive Director's Report.

XI. Other Business.

A. Miscellaneous Information Items.
B. Scheduling of next Board meeting (March 12, 2026).

XII. 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.

OFFICE OF THE ATTORNEY GENERAL
STATE OF UTAH

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Mark E. Burns
Civil Deputy Attorney General

Daniel Burton
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& General Counsel

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Stewart M. Young
Criminal Deputy Attorney General

OAG-003-26

MEMORANDUM

TO: Brett D. Mickelson, Chair
Utah Waste Management and Radiation Control Board

FROM: Brenden K. Catt, Assistant Attorney General
Environment/Health & Human Services Division
Utah Attorney General's Office

DATE: February 5, 2026

SUBJECT: Board Authorization of Director Sonnenburg as Executive Secretary

I. Legal Background.

The Utah Waste Management and Radiation Control Board (the "Board") was created under Utah Code § 19-1-106(1)(d). The Board consists of twelve members, including a Chair of the Board, who are appointed pursuant to Utah Code § 19-6-103. The Director of the Division of Waste Management and Radiation Control ("Director") shall, as authorized by the Board, act as Executive Secretary of the Board under the direction of the Chair. Utah Code § 19-6-107(2)(k). A quorum of the Board has the authority to authorize the Director, through a motion and vote at a public meeting, to act as Executive Secretary. *Id.* §§ 19-6-103(10), -104(7).

II. Factual Background.

The Executive Director of the Utah Department of Environmental Quality appointed Ted Sonnenburg, P.E., as the Director of the Division of Waste Management and Radiation Control ("Director Sonnenburg"). That appointment became effective on January 5, 2026. The Board has the authority to authorize Director Sonnenburg to act as Executive Secretary of the Board through a public motion and vote. Upon the Board authorizing Director Sonnenburg to act as the Executive Secretary, Director Sonnenburg shall, as Executive Secretary, be under the direction of the Chair of the Board.

III. Conclusion.

Based on the foregoing, the Board should, upon motion, vote to authorize Director Sonnenburg to act as the Executive Secretary of the Board, effective January 5, 2026. Such a vote should be held by a quorum of the Board during a public meeting and should be considered approved if a majority of the quorum votes in favor of authorizing Director Sonnenburg to act as the Executive Secretary.

BKC/srb

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
January 8, 2026
1:30 p.m.

Board Members Participating at Anchor Location: **Brett Mickelson (Chair), Dennis Riding (Vice-Chair), Tim Davis, Vern Rogers, Neil Schwendiman, Shane Whitney**

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

Board Members Excused: **Jeremy Hawk**

UDEQ Staff Members Participating at Anchor Location: **Ted Sonnenburg, Brent Everett, Morgan Atkinson, Brenden Catt, Brandon Davis, Tyler Hegburg, Chris Howell, Jalynn Knudsen, Sally Kaiser, Larry Kellum, Daniella Leeber, Arlene Lovato, Gabby Marinick, Deborah Ng, Mike Pecorelli, Bret Randall, Elisa Smith, Raymond Wixom**

Others Attending at Anchor Location: **Steve Gurr, Nick Clarke**

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

This meeting was recorded and an unedited audio of this meeting can be accessed at:
https://www.utah.gov/pmn/files/1374993.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. Declaration of Conflict of Interest.

Vern Rogers declared a conflict of interest and abstained from voting on Agenda Item IX. A. Low-Level Radioactive Waste. Energy*Solutions*, LLC request for a one-time, site-specific treatment variance.

IV. Introduction of Bret Randall, Division Chief, Office of Attorney General, Environment Division.

Executive Director Tim Davis introduced Mr. Bret Randall, highlighting his extensive experience providing legal support to the Department. This includes his previous role providing legal support to Executive Director Davis during his tenure as the Director of Drinking Water, as well as his legal support to the Drinking Water Board. Additionally, Mr. Randall previously provided legal support to the Division of Waste Management and Radiation Control.

Mr. Randall joined the Utah State Attorney General's Office in 2017. In December 2025, Utah Attorney General Derek Brown appointed Mr. Randall to his new role of Director of the Division of Environment/Health and Human Services, Utah Attorney General's Office. Mr. Randall replaces the recently

retired Craig Anderson. Executive Director Davis remarked that Mr. Randall is a leading expert in Utah on administrative law.

In his new role as Director for the Environment/Health and Human Services Division, Mr. Randall has named Brenden Catt as Section Director over the Environment Section. Mr. Catt replaces Marina Thomas, who recently departed for a position in the private sector. Executive Director Davis offered best wishes to Ms. Thomas in her new endeavors and to Mr. Catt in his new role.

V. Introduction of Ted Sonnenburg, Director, Division of Waste Management and Radiation Control.

Executive Director Davis introduced Ted Sonnenburg and informed the Board of his appointment of Mr. Sonnenburg as the new Director of the Division of Waste Management and Radiation Control (Division). Mr. Sonnenburg replaces Doug Hansen, who recently retired.

Mr. Sonnenburg brings extensive experience to this role, having most recently served as the Section Manager for the Used Oil Program in the Division. His background includes over 20 years of experience and includes experience working with a local health department, working as an industry leader, and various management roles within UDEQ and the Department of Natural Resources. One notable position mentioned is that Mr. Sonnenburg is proud to serve as the President of Copper Mountain Soccer Club.

Executive Director Davis also reintroduced Brent Everett, who has served as the Director of the Division of Environmental Response and Remediation since December 2009. Mr. Everett has been with UDEQ for nearly 36 years.

Executive Director Davis expressed his appreciation to Director Everett for his leadership, good nature, and humor. He also highlighted one notable position that Mr. Everett takes great pride in is his role as an adjunct facility member within the Biology Department at Utah Valley University, where he has taught human anatomy labs for nearly 30 years.

VI. Approval of meeting minutes for the November 13, 2025, Board Meeting (Board Action Item).

It was moved by Shane Whitney and seconded by Dr. Steve McIff and UNANIMOUSLY CARRIED to approve the November 13, 2025, Board meeting minutes.

VII. 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 December 2025, was $39,935,461.00. 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.

Mr. Everett also mentioned that with the upcoming legislative session the DERR is watching two potential pieces of legislation. One would be an amendment to the Illegal Drug Operations Site Reporting and Decontamination Act. The other is something that was mentioned in a news article and is related to a reduction in the State Fuel Tax. If legislation does move forward on these or other items that would impact the DERR, Mr. Everett will keep the Board informed.

There were no comments or questions for Mr. Everett.

VIII. Administrative Rules.

A. Approval from the Board to proceed with final adoption of 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).

Brandon Davis, 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 for final adoption of 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 since Utah is an Agreement State with the NRC.

At the Board meeting on October 9, 2025, the Board approved the proposed changes to Utah Admin. Code R313-24 (uranium mill and source material, mill tailings, disposal facility requirements) to be filed with the Office of Administrative Rules for publication in the *Utah State Bulletin*. The proposed changes were published in the November 1, 2025, issue of the *Utah State Bulletin* (Vol. 2025, No. 21).

The 30-day public comment period for this rulemaking ended on December 1, 2025; no comments were received.

The Director recommends the Board approve final adoption of the proposed changes to Utah Admin. Code R313-24 as published in the November 1, 2025, issue of the *Utah State Bulletin* and set an effective date of January 12, 2026.

There were no additional comments or questions.

It was moved by Vern Rogers and seconded by Dennis Riding and UNANIMOUSLY CARRIED for the Board to approve final adoption of the proposed changes to Utah Admin. Code R313-24, to incorporate federal regulatory changes made by the Nuclear Regulatory Commission to the federal radioactive materials regulations in 2023 (88 FR 57873), as published in the November 1, 2025, issue of the *Utah State Bulletin* and set an effective date of January 12, 2026.

IX. Low-Level Radioactive Waste.

A. Energy*Solutions*, LLC request of 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) (Board Action Item).

Tyler Hegburg, Environmental Scientist from the Low-Level Radioactive Section in the Division, reviewed Energy*Solutions*, LLC request of 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).

At the Board meeting on November 13, 2025, Energy*Solutions, LLC* presented as an informational item a request for approval of a one-time site-specific treatment variance for Utah Admin. Code R315-268-40(a)(3) to receive, treat, and microencapsulate approximately 35 tons of incinerator ash waste that contains RCRA

metals with elevated levels of dibenzo-p-dioxins and dibenzofurans as Underling Hazardous Constituents (UHCs) at their Mixed Waste Landfill Cell.

The basis for this variance is found in 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 generation 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 Energy*Solutions* Clive facility as Low-Level Radioactive Waste (LLRW) and disposed in their 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 waste ash. Re-incineration attempts resulted in very little reduction in concentrations of the dioxan and furan contaminants, making the process of re-incineration inappropriate and redundant in an attempt to attempt to meet the treatment standards. Requiring this additional step also increases personnel exposure as further handling requirements to this waste.

Energy*Solutions, LLC* has proposed to confirm that the waste meets all required treatment standards with the exception of the dioxan and furan UHC standards and then macroencapsulate the ash residue following approved requirements for MACRO in their state-issued Part B Permit. Macroencapsulation is an approved process that provides further isolation from the environment and will avoid unnecessary additional reattempts of incineration of the waste. Final disposal of the waste will occur in the Mixed Waste Disposal Cell at the Energy*Solutions* Mixed Waste Facility.

Historically, Energy*Solutions, LLC* has requested this variance a total of six times for this generator dating back to June 2018. The previous variance request was approved 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 ended November 28, 2025; no public comments were received. Documents related to this variance request were also posted on the Division's webpage.

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 method.

There were no additional comments or questions.

It was moved by Mark Franc and seconded by Dr. Codell and UNANIMOUSLY CARRIED to approve 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 RCRA metals with elevated levels of dioxins and furans as Underlying Hazardous Constituents. Vern Rogers abstained from voting.

X. X-Ray Program.

A. Approval of qualified Mammography Imaging Medical Physicists (MIMPs) in accordance with Utah Code Annotated 19-3-103.1 (2)(c) (Board Action Item).

Brandon Davis, X-Ray and Technical Support Section Manager in the Division of Waste Management and Radiation Control (Division), reviewed the request for the Board to approve three applicants to be certified as new Mammography Imaging Medical Physicists. These individuals are referred to as Mammography Imaging Medical Physicists (MIMPs). These physicists perform radiation surveys and evaluate the quality control programs of the facilities in Utah providing mammography examinations. Initial MIMP certification must be approved by the Board in accordance with Utah Code Annotated Subsection 19-3-103.1(2)(c).

Division staff have reviewed the qualifications of Jeremy Corwin, Joseph VoetBerg, Jr., and Marc Cramer, and have determined that they have met the requirements detailed in Utah Admin. Code R313-28-140.

The Director of the Division of Waste Management and Radiation Control recommends the Board issue a certificate of approval for the applicants reviewed and presented to the Board.

There were no additional comments or questions.

It was moved by Dennis Riding and seconded by Shane Whitney and UNANIMOUSLY CARRIED to approve Jeremy Corwin, Joseph VoetBerg, Jr., and Marc Cramer, to be certified as Mammography Imaging Physicists (MIMPs) in accordance with Utah Code Annotated 19-3-103.1(2)(c).

XI. Hazardous Waste Section.

A. Approval of the Proposed Stipulation and Consent Order between the Director and Williams International Co., L.L.C. (Information Item).

Deborah Ng, Hazardous Waste Section Manager in the Division of Wate Management and Radiation Control, (Division) reviewed the proposed Stipulated Compliance Order (SCO) No. 2412148 between the Director and Williams International Co., L.L.C. to resolve Notice of Violation No. 2304034.

The proposed SCO settles 42 violations and includes a total penalty of $140,954.00, of which $35,238.50 will be paid in cash, to the Director of the Division of Waste Management and Radiation Control.

The Director will also agree to defer and waive $35,238.50 of the total penalty if Williams International Co., L.L.C. submits quarterly compliance audit reports as outlined in the SCO within specified timeframes.

A proposed Supplemental Environment Project (SEP) in the amount of $70,477.00 may be credited toward the total penalty if, within one year, Williams International Co., L.L.C. completes the approved project. The amount credited to the total penalty is fifty cents to every SEP credit dollar of actual costs. The proposed SEP involves upgrades to their central accumulation area that are not required by regulation. The upgrades include a permanent structure that limits access, chemical resistant epoxy flooring, and advanced secondary containment. Also, part of the SEP is the Chip Exchange Project that will add an epoxy floor and lean-to-shed to protect items from the elements. The proposed project is anticipated to cost $170,467.00.

A 30-da y notice for public comment was published in the *Salt Lake Tribune,* the *Deseret News,* and the *Standard Examiner* on December 26, 2025. The 30-day public comment period began December 26, 2026, and will end on January 26, 2026.

This is an informational item only. The Director will provide a recommendation following the public comment period at a future Board meeting.

Dr. Danielle Endres requested a brief summary of the violations and requested additional clarification regarding the proposed SEP project, including whether the proposed SEP project will take place at the Williams International Co., L.L.C. facility and if so, is it intended to make the facility safer.

Ms. Ng stated that the SEP project will take place at the Williams International Co., L.L.C. facility. Ms. Ng provided a brief description of what the inspectors found at the facility. Through this proposed SEP, Williams International Co., L.L.C., will install a concrete floor with the epoxy coating, similar to a "Tuff Shed." The pre-fab building will contain berms designed to collect spills and if a spill occurs, the release would not go off-site. Additionally, the SEP, will include installing closed doors within a fenced area ensuring restricted access at the facility.

Ms. Ng provided a brief description of the Williams International Co., L.L.C. violations, noting that the violations included improper employee training, incorrect labeling requirements, as well as incorrect waste determination requirements. To assist Williams International Co., L.L.C. in achieving compliance, they hired a third party consultant. This consultant will provide necessary training as well as assistant the facility with other compliance matters including updating their contingency plans.

Dennis Riding noted that this facility has a long compliance history, with the first inspections dating back to 2016. Given this timeframe, Mr. Riding requested clarification regarding the Division's interaction with the facility in regard to the efforts made to bring the facility into compliance.

Ms. Ng stated that there has been a lot of back and forth with the facility. Compliance processes involved the facility submitting documentation, followed by staff reviews and requests for the facility to address any outstanding compliance issues. This back and forth process required a significant amount of time to assist the facility back into compliance. Once the facility was in compliance, the negotiations for the settlement of the violations began.

XII. Director's Report.

Director Sonnenburg informed the Board that the 2026 Utah State Legislative session will begin on January 20, 2026. The Division is currently monitoring several bills; however, it is premature to provide specific details at this time. Director Sonnenburg anticipates providing a detailed report to the Board during their February Board meeting. This update will include the status of the bills currently being tracked, as well as those that the Division has an interest in.

Director Sonnenburg also extended an invitation to the Board and stated that if they have any specific interest in the Division presenting information on any programs, activities, topics, or subjects, he welcomes the opportunity to present that information in upcoming meetings.

Dr. Danielle Endres commented that she would like to receive updates concerning Energy*Solutions'* recent request to the Northwest Interstate Compact to receive waste from Canada. Dr. Endres noted that while this issue does not fall under the Board's jurisdiction, she would appreciate being kept informed as new information becomes available.

Executive Director Davis provided an update regarding Energy*Solutions'* request to the Northwest Interstate Compact to receive waste from Canada. Executive Director Davis commented that at a future Board meeting, Director Sonnenburg will be providing additional updates/information as there will be additional discussions that involve the Board regarding cell expansions at Energy*Solutions* to accept this waste. Executive Director Davis informed the Board that the Northwest Interstate Compact voted to approve the importation of low-level radioactive waste from the province of Ontario, Canada to Energy*Solutions*, Clive Facility. The approval is specifically for low-level radioactive waste generated by nuclear power plants in Ontario. This waste is limited to materials that comply with Energy*Solutions'* existing processing

capabilities, and several provisions are in place to ensure all shipments meet Energy*Solutions'* current permit criteria, and complies with what Energy*Solutions* can currently process. The measure passed with seven votes in favor and one abstention.

Executive Director Davis stated that while this specific request does not fall under the Board's jurisdiction, the next step in the process will be the application review for the expansion of the cells at Energy*Solutions*, and at that point, the State of Utah will be more directly involved as a decision-maker.

Dr. Richard Codell commented on the subject, noting that while it is premature, he has watched some press reports regarding Energy*Solutions* receiving approval to accept depleted uranium, and although he is uncertain of the credibility of these reports, he felt it was important to highlight that the issue is being discussed. Executive Director Davis confirmed that the Northwest Interstate Compact did not change the types of low-level waste that Energy*Solutions* is permitted to accept and the Energy*Solutions* permit does not include accepting depleted uranium.

Chairman Mickelson welcomed Director Sonnenburg to his new positions and commented that the Board looks forward to working with him.

XIII. Executive Director's Report.

Executive Director Davis informed the Board that he and Director Sonnenberg will provide some updates at the next meeting regarding anticipated changes within the Division of Waste Management and Radiation Control.

Executive Director Davis informed the Board that he did not have any additional legislative updates beyond those already provided by Director Sonnenburg and Director Everett. Executive Director Davis stated that he will be providing a detailed legislative update at the February Board meeting.

Additionally, Executive Director Davis informed the Board that the UDEQ's legislative appropriation hearings are scheduled to begin before the Natural Resources, Agriculture, and Environmental Quality Appropriations Subcommittee, starting with the Executive Director's Office on January 22, 2026. Executive Director Davis informed the Board that by the time the Board meets again in February, all UDEQ Divisions will have completed their subcommittee hearings before the Natural Resources, Agriculture, and Environmental Quality Appropriations Subcommittee.

Executive Director Davis also reported that the House of Representatives approved the U.S. EPA (EPA) Interior Appropriation Bill that included a 3.5% reduction in EPA's budget from what was appropriated last fiscal year as a continuing resolution. Executive Director Davis shared that significant coordination with the State's delegation and the Governor's Office was necessary to communicate the impact of the proposed budget cuts to the EPA and commented that had the original proposal budget cuts to EPA moved forward, the impact on states would have been dramatic, specifically affecting UDEQs ability to manage permitting efficiently, ensure regulatory certainty, and as well as the ability to protect Utah's air, land, water, and support communities and growth statewide.

Executive Director Davis stated that while EPA's approved budget still requires the U.S. Senate approval, as well as the President's signature, the current progress provides certainty for the remainder of this fiscal year, and it is anticipated that this process will begin again for the next fiscal year starting October 1st.

Executive Director Davis briefly reviewed the specifics associated within the 3.5% reduction in EPA's budget, including the impacts to State and Tribal Assistance Grants. These State and Tribal Assistance Grants are considered essential federal funding that allows states to implement 90% of federal environmental laws under the model of cooperative federalism.

Chairman Mickelson commented that the Board will look forward to updates regarding legislative matters at their February meeting.

XIV. Other Business.

A. Miscellaneous Information Items - None.
B. Scheduling of next Board meeting (February 12, 2026).

The next Board meeting is scheduled for February 12, 2026, 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#

XV. Adjourn.

The meeting adjourned at 2:00 p.m.

PST STATISTICAL SUMMARY
January 1, 2025 -- December 31, 2025

PROGRAM

	January	February	March	April	May	June	July	August	September	October	November	December	(+/-) OR Total
Regulated Tanks	4,859	4,869	4,886	4,897	4,907	4,902	4,907	4,912	4,906	4,907	4,917	4,914	**55**
Tanks with Certificate of Compliance	4,668	4,670	4,674	4,682	4,683	4,692	4,695	4,701	4,721	4,731	4,756	4,753	**85**
Tanks without COC	191	199	212	215	223	210	212	211	185	176	161	161	**(30)**
Cumulative Facilitlies with Registered A Operators	1,270	1,262	1,278	1,271	1,272	1,254	1,267	1,271	1,273	1,274	1,276	1,277	**83.79%**
Cumulative Facilitlies with Registered B Operators	1,283	1,276	1,280	1,273	1,273	1,256	1,266	1,270	1,272	1,272	1,274	1,275	**83.66%**
New LUST Sites	11	2	9	6	4	8	5	12	7	7	8	3	**82**
Closed LUST Sites	9	6	6	4	5	3	8	5	3	6	1	4	**60**
Cumulative Closed LUST Sites	5733	5739	5741	5748	5751	5758	5765	5768	5774	5776	5780	5783	**50**

FINANCIAL

	January	February	March	April	May	June	July	August	September	October	November	December	(+/-)
Tanks on PST Fund	3,056	3,056	3,052	3,064	3,059	3,067	3,064	3,062	3,084	3,100	3,105	3,102	**46**
PST Claims (Cumulative)	734	738	738	741	740	740	739	739	739	740	739	740	**6**
Equity Balance	$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	$15,156,203	$15,801,900	$14,878,066	**$7,029,577**
Cash Balance	$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	$40,213,598	$40,859,295	$39,935,461	**$1,768,673**
Loans	0	0	0	0	0	0	0	0	2	0	0	0	**0**
Cumulative Loans	129	129	129	129	129	129	129	129	131	131	131	131	**2**
Cumulative Amount	$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	$6,520,492	$6,520,492	$6,520,492	**$306,787**
Defaults/Amount	0	0	1	1	2	2	2	2	2	3	2	2	**2**

	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL
Speed Memos	78	127	135	199	135	165	135	114	118	133	191	161	**1,691**
Compliance Letters	13	7	8	11	18	10	9	11	8	3	8	16	**122**
Notice of Intent to Revoke	0	0	1	0	0	0	0	0	0	0	0	0	**1**
Orders	1	0	0	0	0	2	1	0	0	2	0	3	**9**

UTAH WASTE MANAGEMENT AND RADIATION CONTROL BOARD

Executive Summary

Public Comment -- Proposed Rule Changes

Utah Administrative Code R315-101

February 12, 2026

What is the issue before the Board?	Approval from the Board to proceed with formal rulemaking and public comment period on proposed changes to Utah Admin. Code R315-101 of the hazardous waste rules amending the rule to provide the Director discretion as to when a Site Management Plan is required for sites that meet Corrective Action Complete with Controls (CACWC).
What is the historical background or context for this issue?	Rule R315-101 establishes information requirements to support risk-based cleanup and closure standards at sites for which remediation or 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. Under current rule, all sites achieving closure as Corrective Action Complete with Controls (CACWC) are required to establish both an Environmental Covenant (EC) and a Site Management Plan (SMP). An EC is a legal agreement recorded with a property's deed in accordance with Utah's Uniform Environmental Covenants Act (UECA) that imposes permanent land-use restrictions, such as prohibiting residential development or limiting ingestion and use of contaminated groundwater. A SMP is a document that outlines how engineering controls such as maintenance of a cover or cap, operation and maintenance of a treatment system (e.g. vapor intrusion mitigation controls), or long-term groundwater monitoring, will be implemented to ensure compliance with these restrictions. All sites must produce an SMP even when no engineering controls are required for site closure, resulting in redundant documentation that merely summarizes the restrictions already legally established in the EC. The amended rule grants the Director the authority to determine on a case-by-case basis whether a SMP is required for CACWC sites. Under this revised rule, an SMP will continue to be required for sites that necessitate engineering controls where specific operational actions or long-term monitoring are essential to ensure continued protection of human health and the environment. For sites where institutional and administrative controls, as outlined in the EC, are sufficient to protect human health and the environment, the Director may waive the SMP requirement to eliminate unnecessary administrative burden. This change pertains strictly to the application of SMPs; no modifications will be made to the existing regulatory requirements or the implementation of ECs.

	The Rule Analysis Form with proposed changes to R315-101 follow this Executive Summary.
What is the governing statutory or regulatory citation?	The Board is authorized under Subsection 19-6-105 to make rules that establish minimum standards for protection of human health and the environment. The rule changes also meet existing DEQ and state rulemaking procedures.
Is Board action required?	Yes. Board approval is necessary to begin the formal rulemaking process by filing the appropriate documents with the Office of Administrative Rules for publishing the proposed rule changes in the *Utah State Bulletin* and conducting a public comment period.
What is the Division Director's recommendation?	The Director recommends the Board approve proceeding with formal rulemaking and public comment by publishing in the March 1, 2026, *Utah State Bulletin* the proposed changes to Utah Administrative Code R315-101 and conducting a public comment period from March 1 to March 31, 2026.
Where can more information be obtained?	Please contact Paige Walton (385-515-0086, pwalton@utah.gov)

State of Utah
Administrative Rule Analysis
Revised May 2025

NOTICE OF SUBSTANTIVE CHANGE		
TYPE OF FILING: Amendment		
Rule or section number:	**R315-101**	**Filing ID: OFFICE USE ONLY**
Date of previous publication (only for CPRs):		

Agency Information

1. Title catchline:	Department of Environmental Quality	
Building:	Multi-Agency State Office Building (MASOB)	
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:**
Paige Walton	385-515-0086	pwalton@utah.gov

Please address questions regarding information on this notice to the persons listed above.

General Information

2. Rule or section catchline:	
R315-101. Cleanup Action and Risk-Based Closure Standards.	
3. Are any changes in this filing because of state legislative action?	Changes are not because of legislative action.
If yes, any bill number and session:	
4. Purpose of the new rule or reason for the change:	
Rule R315-101 is being amended with the purpose of granting the director discretion regarding Site Management Plan requirements for sites designated as Corrective Action Complete with Controls.	
5. Summary of the new rule or change:	
The amended rule provides the director discretion to determine, on a site-specific basis, if a Site Management Plan is required for sites designated as Corrective Action Complete with Controls.	

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 there will be any cost or savings to the state budget due to this rule amendment. There will be no change to the procedures and manpower used by the State to review risk assessments and cleanup plans that are based on the amended rule.
B. Local governments:
This rule change is not expected to have any fiscal impact on local government revenues or expenditures because it does not shift any oversight costs or financial obligations to local jurisdictions.
C. Small businesses ("small business" means a business employing 1-49 persons)**:**
There are approximately 853 small businesses in the Land Subdivision (NAICS 237210) and Commercial and Institutional Building Construction (NAICS 236220) industries in the State of Utah. Based on internal agency data from the previous fiscal

year, there were approximately 10 applications for site closure, of which approximately 5 (50%) would have been eligible for the waiver established by this rule change. This rule change has the potential to provide a direct fiscal benefit to approximately 3 small businesses per year. These businesses are expected to experience a direct fiscal benefit as the Director's discretion to waive a Site Management Plan (SMP) will result in a one-time cost savings of approximately $3,000 per site in avoided professional fees and administrative burdens. The exact number of future impacted businesses remains inestimable because the direct fiscal benefit is granted on a site-specific, discretionary basis and is contingent on the number and complexity of future applications received by the agency. This rule change imposes no new fiscal costs.

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

There are approximately 42 non-small businesses in the Land Subdivision (NAICS 237210) and Commercial and Institutional Building Construction (NAICS 236220) industries in the State of Utah. Based on internal agency data from the previous fiscal year, there were approximately 10 applications for site closure, of which approximately 5 (50%) would have been eligible for the waiver established by this rule change. This rule change has the potential to provide a direct fiscal benefit to approximately 2 non-small businesses per year These businesses are expected to experience a direct fiscal benefit as the Director's discretion to waive a Site Management Plan (SMP) will result in a one-time cost savings of approximately $3,000 per site in avoided professional fees and administrative burdens. The exact number of future impacted businesses remains inestimable because the direct fiscal benefit is granted on a site-specific, discretionary basis and is contingent on the number and complexity of future applications received by the agency. This rule change imposes no new fiscal costs.

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***)**:**

This rule change is not expected to have a significant fiscal impact on other persons' revenues or expenditures because the regulatory requirements for Site Management Plans primarily affect business entities and developers. However, persons other than small businesses, non-small businesses, state, or local government entities acting could experience a direct fiscal benefit. These persons may see a one-time cost savings of approximately $3,000 per application by avoiding professional fees for Site Management Plan development. The total aggregate fiscal impact for this group is inestimable because the number of persons who will manage a contaminated site closure rather than utilizing a business entity is unknown and cannot be reasonably predicted from historical agency data. This rule change imposes no new fiscal costs.

F. Compliance costs for affected persons:

It is not anticipated that there will be any additional compliance costs for affected persons due to the adoption of this rule other than those mentioned above.

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	$6,000	$9,000	$9,000	$9,000	$9,000
Non-Small Businesses	$0	$6,000	$6,000	$6,000	$6,000
Other Persons	$0	$0	$0	$0	$0
Total Fiscal Benefits	**$6,000**	**$15,000**	**$15,000**	**$15,000**	**$15,000**
Net Fiscal Benefits	**$6,000**	**$15,000**	**$15,000**	**$15,000**	**$15,000**

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. This rule change provides regulatory flexibility for Cleanup Action and Risk-Based Closure Standards without any reduction to protection of human health and the environment.

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:		
19-6-105	19-6-106	

Incorporation by Reference Information

8. Incorporation by Reference (if this rule incorporates more than two items by reference, please include additional tables)**:**	
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)	
Publisher	
Issue Date	
Issue or Version	

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)	
Publisher	
Issue Date	
Issue or Version	

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:		03/31/2026
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** (hh:mm AM/PM)**:**	**Place** (physical address or URL)**:**
Click or tap to enter a date.		
To the agency: If more than one hearing is planned to take place, continue to add rows.		

10. This rule change MAY become effective on:	04/16/2026
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

To the agency: Information requested on this form is required by Sections 63G-3-301, 63G-3-302, 63G-3-303, and 63G-3-402. The office may return incomplete forms to the agency, possibly delaying publication in the *Utah State Bulletin* and delaying the first possible effective date.			
Agency head or designee and title:	Ted H. Sonnenburg, P.E., LEHS, Division Director	**Date:**	Click or tap to enter a date.

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) The director may make a [~~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) In making a determination of either corrective action complete with controls or restricted land use under Subsection R315-101-7(b), the director has the discretion to require a site management plan. If the director requires a site management plan, [~~The~~] 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) If a site management plan is required, [~~The content of the site management plan. The~~]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) If a site management plan is required, and [~~For~~]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 environmental covenant, site management plan, or both. 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, including site workers and construction workers, of the residual risk at the site and the existence of controls outlined in the environmental covenant or 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~~]The owner or responsible party shall be responsible for implementing[~~provide~~] those controls, including any controls to prevent workers from exposure.

(c) Within 48 hours of becoming aware of a deviation from the land use controls and restrictions,[~~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 environmental covenant or 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. If a site management plan is required, the[~~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 $1x10^{-4}$ 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: December 11, 2025
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-106

UTAH WASTE MANAGEMENT AND RADIATION CONTROL BOARD

Executive Summary
Proposed Stipulated Compliance Order No. 2412148
Williams International Co., L.L.C.
UTD093113900

February 12, 2026

What is the issue before the Board?	This is a Proposed Stipulated Compliance Order No. 2412148 with Williams International Co., L.L.C. to resolve Notice of Violation No. 2304034.
What is the historical background or context for this issue?	The proposed Stipulated Compliance Order (SCO) settles 42 violations and includes a total penalty of $140,954.00, of which $35,238.50 will be paid in cash, to the Director of the Division of Waste Management and Radiation Control. The Director will agree to defer and waive $35,238.50 of the total penalty if Williams International Co., L.L.C. submits quarterly compliance audit reports as outlined in the SCO within specified timeframes. A proposed Supplemental Environment Project (SEP) in the amount of $70,477.00 may be credited toward the total penalty if, within one year, Williams International completes the approved project. The amount credited to the total penalty is fifty cents to every SEP credit dollar of actual costs. The proposed SEP involves upgrades to their central accumulation area that are not required by regulation. The upgrades include a permanent structure that limits access, chemical resistant epoxy flooring, and secondary containment. Also, part of the SEP is the Chip Exchange Project that will add an epoxy floor and lean-to-shed to protect items from the elements.
What is the governing statutory or regulatory citation?	Section 19-6-104 of the Utah Solid and Hazardous Waste Act authorizes the Board to issue orders and approve or disapprove settlement negotiated by the Director with a civil penalty over $25,000.00.
Is Board action required?	Yes. This is a Board Action Item.
What is the Division Director's recommendation?	A 30-day public comment was published in the *Salt Lake Tribune*, the *Deseret News*, and the *Standard Examiner* on December 24, 2025. The 30-day public comment period to receive comments on the proposed SCO commenced on December 26, 2025, and ended on January 26, 2026; no comments were received. The Director recommends the Board approve the SCO.
Where can more information be obtained?	For technical information, please contact Deborah Ng at 385-499-0837. For legal information, please contact Brenden Catt at 385-379-2591.

DSHW-2026-000012
Attachments:
Stipulated Compliance Order No. 2412148 (DSHW-2025-000251)
Penalty Narrative (DSHW-2025-000250)
Notice of Violation No. 2304034 (DSHW-2023-003740)

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In the Matter of:	:	**STIPULATED COMPLIANCE ORDER**
	:	
Williams International Co., L.L.C. Notice of Violation and Compliance Order No. 2304034 UTD093113900	: :	**No. 2412148**

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This **STIPULATED COMPLIANCE ORDER (SCO)** is issued by the DIRECTOR OF THE UTAH DIVISION OF WASTE MANAGEMENT AND RADIATION CONTROL (Director) pursuant to the Utah Solid and Hazardous Waste Act, Utah Code Section 19-6-101 *et seq*. (SHWA), Utah Used Oil Management Act, Utah Code Section 19-6-701 *et seq*. (UOMA), and Utah Administrative Code R315 (the Rules).

JURISDICTION

1. The Director has jurisdiction over the subject matter of this SCO pursuant to Utah Code Sections 19-6-107, 19-6-112, 19-6-721, and 19-6-721.1 and jurisdiction over Williams International Co., L.L.C. (Williams). Williams consents to and will not challenge issuance of this SCO or the Director's jurisdiction to enter into and enforce this SCO.

2. Williams and the Director are collectively referred to as the "parties" and individually as a "party" to this SCO.

3. The Waste Management and Radiation Control Board has authority to review and approve or disapprove this SCO pursuant to Utah Code Section 19-6-104(1)(e).

FINDINGS

4. Williams is a Limited Liability Company registered to do business in the State of Utah. Williams is the legal owner and operator of the Williams International Co., L.L.C. facility (Facility).

5. The Facility is an industrial jet turbine, aircraft engine, and engine parts manufacturing facility located at 3450 Sam Williams Drive, Ogden, Utah. Williams operates the Facility under the provisions of the SHWA, UOMA, and the Rules.

6. Williams is a "person" as defined in Utah Code Section 19-1-103(4) and is subject to all applicable provisions of the SHWA, UOMA, and the Rules.

7. Pursuant to Utah Code Sections 19-6-109 and 19-6-705, authorized representatives of the Director (inspectors) conducted three compliance evaluation inspections at the Facility.

8. On August 3, 2016, inspectors conducted their first compliance evaluation inspection at the Facility that resulted in the issuance of a letter from the Division of Waste Management and

Radiation Control (Division) requesting a return to compliance, dated September 12, 2016 (DSHW-2016-012602).

9. On August 13, 2020, inspectors conducted their second compliance evaluation inspection at the Facility that resulted in the issuance of Warning Letter No. 2011134, dated November 20, 2020 (DSHW-2020-016865).

10. On March 14, 2023, inspectors conducted their third Compliance Evaluation Inspection at the Facility, and many of the violations identified in the letter sent to Williams on September 12, 2016, and in Warning Letter No. 2011134 were also identified during this inspection.

11. On May 9, 2024, the Director issued Notice of Violation and Compliance Order No. 2304034 (the NOV/CO), which alleged violations of the SHWA, UOMA, and the Rules based on findings documented during the inspection on March 14, 2023 (DSHW-2023-003740).

12. On May 23, 2024, the Director clarified the deadline for Williams to respond to the NOV/CO (DSHW-2024-006377).

13. On June 6, 2024, the Director and Williams stipulated to an extension of time for filing a Request for Agency Action, which extended the time to file to July 23, 2024 (DSHW-2024-006955).

14. On June 6, 2024, the Director and Williams also executed a Tolling Agreement establishing a tolling period from June 6, 2024, to June 5, 2025 (DSHW-2024-006956).

15. Between July 16, 2024, and November 21, 2024, Williams provided numerous submissions to the Director in response to the NOV/CO.

16. On July 18, 2024, the Director and Williams stipulated to the first extension of time for filing a Request for Agency Action, which extended the time to file to August 12, 2024 (DSHW-2025-001575).

17. On August 5, 2024, the Director and Williams stipulated to the second extension of time for filing a Request for Agency Action, which extended the time to file to December 3, 2024 (DSHW-2024-007719).

18. On October 2, 2024, the Director provided comments to Williams' response submissions (DSHW-2024-007811).

19. On October 15, 2024, the Director provided a new response deadline for an incorrect addressee in his previous correspondence dated October 2, 2024 (DSHW-2024-008596).

20. On May 8, 2025, and through their respective legal representatives, the Director and Williams executed the First Extension of Tolling Agreement, extending the expiration of the tolling period from June 5, 2025, to June 5, 2026 (DSHW-2025-002404).

21. On November 4, 2025, Williams proposed a Supplemental Environmental Project to the Director that includes upgrading a Central Accumulation Area and Chip Bin Storage Area at the Facility (the SEP) that Williams demonstrated will increase protection to human health and the environment because the upgrades will protect containers from the elements, reduce the likelihood of spills or releases, and mitigate the impact from any future spill or release (DSHW-2025-005660).

22. In accordance with the Civil Penalty Policy, Utah Admin. Code R315-102 *et seq.*, which considers such factors as the gravity of the violations, the extent of deviation from the Rules, the potential for harm to human health and the environment, good faith efforts to comply, and other factors, the Director calculated and proposed a penalty based on the violations alleged in the NOV/CO.

STIPULATED COMPLIANCE ORDER

23. This SCO has been negotiated in good faith and the parties now wish to fully resolve the NOV/CO without further administrative or judicial proceedings.

24. In full settlement of the violations alleged in the NOV/CO, Williams shall pay a total penalty of $140,954.00 (one hundred forty thousand nine hundred fifty-four dollars), as specified in ¶ 25 through ¶ 29.

25. Within 30 days after the Effective Date of this SCO, Williams shall make a cash payment of $35,238.50 (thirty-five thousand two hundred thirty-eight dollars and fifty cents) to the State of Utah, Department of Environmental Quality, c/o Director, Division of Waste Management and Radiation Control, P.O. Box 144880, Salt Lake City, Utah 84114-4880.

26. The Director agrees to defer and waive $35,238.50 (thirty-five thousand two hundred thirty-eight dollars and fifty cents) of the total penalty (the Deferred Penalty) if:

    a. Williams submits quarterly compliance audit reports (Quarterly Reports) to the Director on the dates specified in ¶ 26.b. that contain the following:

        i. Documentation of all required training of personnel handling solid waste, hazardous waste, hazardous secondary material, universal waste, and used oil that occurred during the previous quarter;
        ii. Documentation of weekly inspections of the Central Accumulation Area(s) and corrective actions implemented at the Central Accumulation Area(s) during the previous quarter;
        iii. Documentation of all spills or releases and the corrective actions taken to mitigate and properly manage spills or releases during the previous quarter;
        iv. Documentation of new waste determinations, including but not limited to waste profiles, analytical data, land disposal determinations, and generator knowledge supporting such documentation, from the previous quarter;
        v. Documentation of any annual reviews of the contingency plan and quick reference guide that occurred during the previous quarter, and, if compliance items need to be updated prior to the annual review, documentation of the updates during the previous quarter; and
        vi. Documentation of any annual reviews and recertifications of waste profiles, including applicable land disposal forms, that occurred during the previous quarter, and if profiles need to be updated prior to the annual review, documentation of the updates during the previous quarter;

    b. Williams submits the Quarterly Reports required by ¶ 26.a. to the Director according to the following table:

Quarterly Report	Dates Covered in Quarterly Report	Due Date*
2026 Q2	April 1, 2026 – June 30, 2026	July 15, 2026
2026 Q3	July 1, 2026 – September 30, 2026	October 15, 2026
2026 Q4	October 1, 2026 – December 31, 2026	January 18, 2027
2027 Q1	January 1, 2027 – March 31, 2027	April 15, 2027

* "Due Date" for purposes of this table is the day, month, and year each Quarterly Report must be submitted to the Director using dwmrcsubmit@utah.gov.

27. If the Director notifies Williams of its failure to comply with ¶ 26.a. through ¶ 26.b., Williams shall pay the Deferred Penalty of $35,238.50 (thirty-five thousand two hundred thirty-eight dollars and fifty cents) to the State of Utah, Department of Environmental Quality, c/o Director, Division of Waste Management and Radiation Control, P.O. Box 144880, Salt Lake City, Utah 84114-4880, not later than 30 days after the Director notifies Williams of its failure to comply. Payment of the Deferred Penalty shall not absolve Williams from complying with any term of this SCO.

28. The amount of $70,477.00 (seventy thousand four hundred seventy-seven dollars) may be credited toward the total penalty (the SEP Credit) if, within one year of the Effective Date of this SCO, Williams completes the SEP, subject to the following conditions:

    a. In calculating the amount credited to the total penalty, $0.50 (fifty cents) will be applied toward the SEP Credit for every $1.00 (one dollar) Williams spends on the SEP (the Actual Cost); and

    b. Within 30 days of completing the SEP, Williams shall submit to the Director a detailed accounting of the Actual Cost that demonstrates the Actual Cost equaled or exceeded $140,954.00. If the Actual Cost is less than $140,954.00, Williams shall make a cash payment to the Director to cover the difference between 50% of the Actual Cost and the SEP Credit.

29. If Williams fails to complete the SEP within one year of the Effective Date of this SCO, the SEP Credit shall not be credited toward the total penalty, and Williams shall pay the SEP Credit to the State of Utah, Department of Environmental Quality, c/o Director, Division of Waste Management and Radiation Control, P.O. Box 144880, Salt Lake City, Utah 84114-4880, not later than 30 days after one year from the Effective Date of this SCO. Payment of the SEP Credit shall not absolve Williams from complying with any term of this SCO.

EFFECTIVE DATE

30. This SCO shall become effective upon the date of execution by the Director (Effective Date).

EFFECT OF THE ORDER

31. For the purpose of this SCO, the parties agree and stipulate to the above stated facts. The obligations in this SCO apply to and are binding upon the Division and upon Williams and any of Williams' successors, assigns, or other entities or persons otherwise bound by law.

32. The stipulations contained herein are for the purposes of settlement and shall not be considered admissions by any party and shall not be used by any person related or unrelated to this SCO for purposes other than determining the basis of this SCO. Nothing contained herein shall be deemed to constitute a waiver by the State of Utah of its right to initiate an enforcement action, including civil penalties, against Williams in the event of future non-compliance with this SCO, with the SHWA, UOMA, and with the Rules; nor shall the State of Utah be precluded in any way from taking appropriate action should such a situation arise again at the Facility. However, entry into this SCO shall relieve Williams of all liability for violations that arose or could have arisen with respect to the allegations contained in the NOV/CO.

33. As of the Effective Date, this SCO will be a final, non-appealable administrative order subject to the civil enforcement provisions of Utah Code Section 63G-4-501 *et seq.* and other applicable law, including Utah Code Sections 19-6-112 and 19-6-721.1.

PUBLIC PARTICIPATION

34. This SCO shall be subject to public notice and comment for a period of at least 30 days (Comment Period) in accordance with Utah Admin. Code R315-124-34. The Director reserves the right to withdraw or withhold his consent if any comment received during the Comment Period discloses facts or considerations indicating this SCO is inappropriate, improper, or inadequate.

SIGNATORY

35. The undersigned representative of Williams certifies that the representative is authorized to enter into this SCO and to legally bind Williams.

Pursuant to the Utah Solid and Hazardous Waste Act, Utah Code Section 19-6-101 *et seq*., and Utah Used Oil Management Act, Utah Code Section 19-6-701 *et seq.*, *in the Matter of Williams International Co., L.L.C. Notice of Violation and Compliance Order No. 2304034*, the parties hereto mutually agree and consent to STIPULATED COMPLIANCE ORDER No. 2412148 as evidenced below:

WILLIAMS INTERNATIONAL CO., L.L.C.

THE STATE OF UTAH
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WASTE MANAGEMENT
AND RADIATION CONTROL

_____
Gregg G. Williams, Executive Vice President
Williams International Co., L.L.C.

Date:_____

_____
Director
Division of Waste Management and Radiation Control

Date:_____

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Number: 1

Violation Description: Failure to make an accurate waste determination at the point of generation to ensure waste is properly managed, in accordance with Utah Administrative Code R315-262-11.

1. Gravity Based Penalty - $8,500.00

   (a) Potential for Harm **– Major** – Williams failed to make an accurate waste determination at the point of generation, which poses a major potential to harm human health and the environment because the waste could be mismanaged, expose personnel to hazardous constituents, or harm the environment if it is not determined to be hazardous at the point of generation.

   Failing to make an accurate waste determination at the point of generation also has a relatively high adverse effect on the statutory and regulatory purposes for implementing the hazardous waste program because accurate waste determinations and ensuring waste is properly managed from cradle to grave based upon its hazards are foundational to the program.

   (b) Extent of Deviation – **Moderate –** Williams significantly deviated from the regulation but conducted a proper waste determination on some of the waste streams. During the March 14, 2023, inspection, inspectors identified 14 instances where Williams did not make a waste determination at the point of generation where material was unknown to workers, Williams' environmental staff, and inspectors.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) - NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – $9,254.00. Williams saved $9,254.00 by delaying or avoiding compliance with the waste determination requirements under Utah Admin. Code R315-262-11 because sampling and analytical testing of the samples to provide accurate waste determination costs at least $661 per sample, and Williams had 14 containers that needed to be sampled and analyzed.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $17,754.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 2, 3

Violation Description: Failure to provide records showing it received a final signed copy of manifests from the designated facility and failure to keep records showing exception reports had not been required or that they had been properly filed, in accordance with Utah Admin. Code R315-262-40(a) and 42(a)(2).

1. Gravity Based Penalty - $2,600.00

   (a) Potential for Harm **– MODERATE –** Williams failed to provide records showing it received a final signed copy of manifests and to keep records showing exception reports had not been required, which poses a medium adverse effect on the procedures for implementing the hazardous waste regulatory program because the program must ensure hazardous waste is managed from cradle to grave. Without these records, inspectors are unable to verify the wastes arrived at the destination facility permitted to manage waste within a reasonable timeframe, and Williams is unable to verify whether the waste was properly managed.

   (b) Extent of Deviation – **MODERATE –** Williams significantly deviated from the requirements of these regulations because it failed to comply with two key elements to ensure waste is properly managed from cradle to grave. During the March 14, 2023, inspection, Williams did not provide documentation that it received signed manifests from the destination facility on six occasions and did not submit exception reports for one manifest for which it had not received a complete copy of the manifest.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – Economic Benefit was evaluated and determined to be negligible.

4. Recalculation of Penalty Based on New Information – The gravity based penalty was recalculated based upon information Williams provided demonstrating that only one manifest was past the deadline to submit an exception report to the Director.

TOTAL: $2,600.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 4, 5, 6, 7

Violation Description: Failure to have required elements in the contingency plan, in accordance with Utah Admin. Code R315-262-261(a), (c), (d), and (f).

1. Gravity Based Penalty - $5,000.00

   (a) Potential for Harm **– MODERATE –** Williams' contingency plan failed to include the required elements under Utah Admin. Code R315-262-261, which poses a medium risk of exposing humans or other environmental receptors to hazardous waste because it lacked procedures describing actions facility personnel must take when responding to emergency situations, arrangements with emergency responders, contact information for emergency coordinators, and an evacuation plan. Without that information, employees could be injured, and the environment could be harmed in an emergency situation.

   (b) Extent of Deviation – **MAJOR –** Although Williams had a contingency plan, it deviated from the requirements of the regulations governing the contents of the contingency plan to such an extent that most of the requirements were not met, resulting in substantial noncompliance with:
      i. Utah Admin. Code R315-262-261(a): Describing the actions facility personnel should take in response to fires, explosion, or any unplanned sudden or non-sudden release of hazardous waste;
      ii. Utah Admin. Code R315-262-261(c): Describing its 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;
      iii. Utah Admin. Code R315-262-261(d): A list of names and emergency telephone numbers of all persons qualified to act as emergency coordinator; and
      iv. Utah Admin. Code R315-262-261(f): An evacuation plan that identifies alternate evacuation routes in cases where the primary routes could be blocked by release of hazardous waste or fires.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – Economic benefit was evaluated but determined to be negligible.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $5,000.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 8, 9

Violation Description: Failure to include critical elements in the Quick Reference Guide, in accordance with Utah Admin. Code R315-262-262(b)(4) and (b)(6).

1. Gravity Based Penalty - **$2,000.00**

   (a) Potential for Harm **– MODERATE –** Williams' Quick Reference Guide failed to include the required elements under Utah Admin. Code R315-262-262(b), which poses a medium risk of exposing humans or other environmental receptors to hazardous waste because it lacked a map showing where hazardous wastes are generated, accumulated, and treated, and the locations of water supplies. Without that information, emergency responders' response times could be delayed, and emergency responders could be injured or unknowingly exposed to hazardous waste.

   (b) Extent of Deviation – **MINOR** – Although Williams had a Quick Reference Guide, Williams deviated somewhat from the requirements of the regulations governing the contents of the Quick Reference Guide because the Quick Reference Guide did not include a map of where hazardous waste is generated or stored and the locations of water supplies.

   (c) Multiple/Multi-day - NA

2. Adjustment Factors (if applicable) – NA

   (d) Good Faith - NA

   (e) Willfulness/Negligence - NA

   (f) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – Economic benefit was evaluated but determined to be negligible.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $2,000.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 10, 11

Violation Description: Failure to maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous constituents and failing to identify and characterize the released material, in accordance with Utah Admin. Code R315-262-251 and 265(b).

1. Gravity Based Penalty - **$13,000.00**

   (a) Potential for Harm **– MAJOR –** Williams failed to maintain and operate the Facility to minimize the possibility of any unplanned sudden or non-sudden release and failed to properly respond to releases when they occurred, which poses a relatively high risk of exposing humans or other environmental receptors to hazardous waste. Moreover, this failure has a relatively high adverse effect on the regulatory program because it allows uncontrolled releases to enter other environmental media causing off-site contamination with no regulatory oversight, which is antithetical to the cradle to grave management of hazardous waste.

   (b) Extent of Deviation – **MAJOR** – Williams deviated from these regulations to such an extent that most of the requirements were not met, resulting in substantial noncompliance since inspectors observed active releases and Williams' personnel did not properly know the extent and source of the released material. These releases caused soil and water to become contaminated.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – $5,300.00. Williams saved at least $5,300 by delaying or avoiding compliance with Utah Admin. Code R315-262-251 and 265(b). Additional media was impacted when the releases were not properly managed, e.g., entered the stormwater. The cost to clean up contaminated stormwater ranges from $5,000 to more than $50,000.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $18,300.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 12

Violation Description: Failure to have immediate access to an internal alarm or emergency communication device when handling, pouring, mixing, or spreading of hazardous waste, in accordance with Utah Admin. Code R315-262-254(a).

1. Gravity Based Penalty - **$1,700.00**

(a) Potential for Harm **– MODERATE –** Failure to have immediate access to communication devices when handling hazardous waste to ensure immediate notification of emergency personnel has a medium risk of exposing humans or other environmental receptors to hazardous waste because it could prolong response times and lead to further releases into the environment.

(b) Extent of Deviation – **MINOR** – Williams deviated somewhat from this requirement and although it had most of the important aspects of the requirement, when inspectors observed and notified area personnel about the observed spills, Williams' personnel did not have immediate access to a communication device to notify the emergency coordinator.

(c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – No economic benefit was determined.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $1,700.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Number: 13

Violation Description: Failure to maintain adequate aisle space for emergency response, in accordance with Utah Admin. Code R315-262-255.

1. Gravity Based Penalty - **$1,600.00**

(a) Potential for Harm **– MODERATE –** Failure to properly maintain aisle space has a medium risk of exposing humans or other environmental receptors to hazardous waste because it could lead to delays in emergency response, exacerbate releases, or allow for additional releases.

(b) Extent of Deviation – **MINOR** – Williams deviated somewhat from this requirement because it failed to maintain adequate aisle space in one specific area of the Facility, but most of the important aspects of the requirements of Utah Admin. Code R315-262-255 were met elsewhere at the Facility.

(c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – No economic benefit was determined.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $1,600.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Number: 14

Violation Description: Failure to make and document arrangements with local police, fire department and other emergency responders, in accordance with Utah Admin. Code R315-262-256(a).

1. Gravity Based Penalty - **$1,600.00**

(a) Potential for Harm **– MODERATE –** Failure to make and document arrangements with local responders poses a medium risk of exposing humans or other environmental receptors to hazardous waste because it could lead to delayed or improper emergency response by emergency personnel and harm human health and the environment.

(b) Extent of Deviation **– MINOR** - Williams deviated somewhat from this requirement because it did not provide inspectors with documentation that it made arrangements with emergency response teams, contractors, and equipment suppliers.

(c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – Economic benefit was evaluated and determined to be negligible.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $1,600.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 15, 16, 17, 18, 19, 20, 21, 22

Violation Description: Failure to provide documentation of personnel training, in accordance with Utah Admin. Code R315-262-17(a)(7)(i)-(iv).

1. Gravity Based Penalty - **$13,000.00**

(a) Potential for Harm **– MAJOR –** Williams failed to provide documentation of personnel training in accordance with Utah Admin. Code R315-262-17(a)(7)(i)-(iv), which poses a relatively high risk of exposing humans or other environmental receptors to hazardous waste because Williams' personnel lack the requisite knowledge to perform their job duties and respond to emergencies, which could lead to mismanagement of waste and improper emergency response. Williams' personnel lack of training also presents a relatively high adverse effect on the statutory and regulatory purposes and procedures of the hazardous waste program because lack of training can lead to noncompliance with the regulatory requirements, which was demonstrated during the March 14, 2023, inspection.

(b) Extent of Deviation – **MAJOR –** Williams deviated from the requirements of these regulations to such an extent that the majority of its personnel were not properly trained or could not be verified as having been properly trained, resulting in substantial noncompliance with the following regulations:

i. Utah Admin. Code R315-262-17(a)(7)(i)(A): Failing to provide training and maintain records demonstrating employees were properly trained to perform their job duties to ensure compliance;
ii. Utah Admin. Code R315-262-17(a)(7)(i)(B): Failing to provide documentation of training conducted by qualified person trained in hazardous waste management procedures including the contingency plan;
iii. Utah Admin. Code R315-262-17(a)(7)(ii): Failing to provide training and maintain records demonstrating employees were properly trained to perform their duties within six months of hire;
iv. Utah Admin. Code R315-262-17(a)(7)(iii): Failing to provide and document annual refresher training after initial training;
v. Utah Admin. Code R315-262-17(a)(7)(iv)(A): Failing to maintain and record the job title for each position at the facility related to hazardous waste management, and the name of the employees filling each position;
vi. Utah Admin. Code R315-262-17(a)(7)(iv)(B): Failing to maintain a written job description for each position and be consistent in its degree of specificity of requisite skills, education, or other qualifications and duties for facility personnel;
vii. Utah Admin. Code R315-262-17(a)(7)(iv)(C): Failing to provide a written description of the type and amount of both introductory and continuing training required for each employee filling positions under Utah Admin. Code R315-262-17(a)(7)(iv)(A); and
viii. Utah Admin. Code R315-262-17(a)(7)(iv)(D): Failing to maintain records that demonstrate and document that training, or job experience has been given to and completed by facility personnel.

(c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

(a) Good Faith - NA

(b) Willfulness/Negligence - NA

(c) History of Compliance or Noncompliance – NA

(d) Ability to Pay - NA

(e) Other Unique Factors - NA

3. Economic Benefit – $18,000.00. Williams saved $18,000 by avoiding compliance with the applicable hazardous waste training rules under Utah Admin. Code R315-262-17(a)(7)(i)-(iv) because hiring a qualified trainer or using an online training program to conduct this training costs $450 per person on average, and Williams has 40 personnel responsible for handling or managing hazardous waste.

4. Recalculation of Penalty Based on New Information – The economic benefit was recalculated based upon information Williams provided to the Director demonstrating that the job duties of 40 personnel require hazardous waste training under Utah Admin. Code R315-262-17(a)(7)(i)-(iv).

TOTAL: $31,000.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 23, 24, 25

Violation Description: Failure to properly label or mark hazardous waste containers with the words "Hazardous Waste", an indication of the hazards, and the accumulation start date, in accordance with Utah Admin. Code R315-262-17(a)(5)(i)(A)-(C).

1. Gravity Based Penalty - $13,000.00

   (a) Potential for Harm **– MAJOR –** Williams failed to properly label hazardous waste containers, which poses a major potential for harm because it could lead to mismanagement and improper handling of the waste, and thus exposure and risk to human health or the environment. Failing to properly label hazardous waste also has a relatively high adverse effect on the statutory and regulatory hazardous waste program because it interferes with the Division's ability to properly inspect the Facility, identify hazardous waste, and evaluate compliance with the SHWA and the Rules.

   (b) Extent of Deviation – **MAJOR** – Williams deviated from the labeling requirements to such an extent that most of the requirement were not met, which resulted in substantial noncompliance. During the inspection, inspectors identified 24 instances where Williams improperly labeled hazardous waste, which resulted in noncompliance with the following:

      i. Utah Admin. Code R315-262-17(a)(5)(i)(A): Failing to label containers with the words "Hazardous Waste";
      ii. Utah Admin. Code R315-262-17(a)(5)(i)(B): Failing to label containers with an indication of the hazards; and
      iii. Utah Admin. Code R315-262-17(a)(5)(i)(C): Failing to label containers with the accumulation start date.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable)

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – Increased 10%. Williams has a history of noncompliance with these Rules because this compliance issue was previously identified during the 2020 inspection.

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – The economic benefit was evaluated and determined to be negligible.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $14,300.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Number: 26

Violation Description: Failure to maintain portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment in required areas, in accordance with Utah Admin. Code R315-262-252(c).

1. Gravity Based Penalty - **$1,600.00**

(a) Potential for Harm **– MODERATE** - Failure to have proper emergency equipment available during an incident poses a medium risk of exposing humans or other environmental receptors to hazardous waste because it could result in a delayed response and harm to employees and the environment. It also poses a medium adverse effect on the statutory or regulatory purposes or procedure for implementing the hazardous waste program because emergency preparation and prevention are fundamental to the management of hazardous waste.

(b) Extent of Deviation – **MINOR –** Williams deviated somewhat from this regulation because it did not have emergency equipment where waste was stored outdoors, but it had emergency equipment where waste was stored indoors.

(c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit - $300.00. Williams saved $300.00 by delaying or avoiding compliance with Utah Admin. Code R315-262-252(c) because a spill kit and fire extinguishers cost around $300.00 on average.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $1,900.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 27, 28, 29

Violation Description: Failure to properly manage hazardous waste containers and complete weekly inspections, in accordance with Utah Admin. Code R315-262-17(a)(1)(ii), (a)(1)(iv)(A), and (a)(1)(v).

1. Gravity Based Penalty - **$9,100.00**

   (a) Potential for Harm **– MAJOR** – Failing to properly manage hazardous waste containers and complete weekly inspections poses a major potential for harm to human health and the environment because containers in poor condition, not closed, and beginning to deteriorate could release hazardous waste to groundwater or soil leading to potential exposure to workers and the environment. During the March 14, 2023, inspection, inspectors observed numerous containers at the Facility that were in poor condition and beginning to deteriorate.

   Failing to properly manage hazardous waste containers also has a relatively high adverse effect on the statutory or regulatory purposes or procedure for implementing the hazardous waste program because container management is fundamental to ensuring hazardous waste does not enter the environment or cause exposure to Williams' personnel.

   (b) Extent of Deviation – **MODERATE –** Williams significantly deviated from the requirements of these regulations by not properly managing and inspecting its containers, which resulted in noncompliance with the following:

      i. Utah Admin. Code R315-262-17(a)(1)(ii): Failing to immediately transfer hazardous waste from a container in poor condition to a container in good condition;
      ii. Utah Admin. Code R315-262-17(a)(1)(iv)(A): Failing to keep hazardous waste containers closed except when actively adding or removing waste; and
      iii. Utah Admin. Code R315-262-17(a)(1)(v): Failing to perform weekly inspections in the central accumulations area (CAA).

   (c) Multiple/Multi-day –NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit -Evaluated but determined to be negligible.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $9,100.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 30, 31

Violation Description: Failure to ensure the satellite accumulation area (SAA) is under the control of the operator, near the point of generation, and containers in the SAA were closed at all times, except when adding, removing, or consolidating waste, in accordance with Utah Admin. Code R315-262-15(a) and (a)(4)(i).

1. Gravity Based Penalty - **$3,380.00**

   (a) Potential for Harm **– MODERATE –** Williams failed to be in control of the SAA and failed to ensure containers within the SAA are closed at all times, which poses a moderate potential for harm because humans or other environmental receptors could be exposed to hazardous waste through vapor emissions from the open containers or if the containers are tipped over. Failure to follow the SAA requirements also has a medium adverse effect on implementing the hazardous waste program because the proper management of hazardous waste from cradle to grave is fundamental to the program.

   (b) Extent of Deviation – **MODERATE** - Williams significantly deviated from the requirements of the regulations governing SAA management because it failed to ensure the SAA was under its control, near the point of generation, and all the containers within the SAA were closed.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit - Economic benefit was evaluated but determined to be negligible.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $3,380.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 32, 33

Violation Description: Failure to properly label universal waste, in accordance with Utah Admin. Code R315-273-14(a) and (e).

1. Gravity Based Penalty - **$1,600.00**

   (a) Potential for Harm **– MODERATE** - Failure to properly label and manage universal waste batteries and lamps has a medium risk of exposing humans or other environmental receptors to hazardous constituents because unlabeled waste could be mismanaged. Failure to properly label universal waste batteries and lamps also has a medium adverse effect on the statutory and regulatory purposes for implementing the hazardous waste program because proper identification of waste is foundational to the hazardous waste regulatory program.

   (b) Extent of Deviation **– MINOR** - Williams deviated somewhat from the requirements of these regulations to properly label universal wastes because inspectors documented two improperly marked containers of universal waste. During the March 14, 2023, inspectors observed the following deviations:

      i. Utah Admin. Code R315-273-14(a): Failing to properly label and manage Universal Waste Battery containers; and
      ii. Utah Admin. Code R315-273-14(e): Failing to properly label and manage Universal Waste Lamp containers.

   (c) Multiple/Multi-day –NA

2. Adjustment Factors (if applicable)

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance - Increased 10%. Williams has a history of noncompliance with these Rules because this compliance issue was previously identified during the 2020 inspection.

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit - Economic benefit was evaluated but determined to be negligible.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $1,760.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 34, 35

Violation Description: Exceedances of the accumulation timeframe for universal waste and failing to demonstrate length of time the universal waste has been accumulated, in accordance with Utah Admin. Code R315-273-15(a) and (c).

1. Gravity Based Penalty - **$260.00**

   (a) Potential for Harm **– MINOR** – Failure to ship universal waste batteries off-site within one year and failing to demonstrate the length of time that universal waste has been accumulating at the Facility poses a minor potential for harm to human health and the environment because it could lead to mismanagement, loss of the waste, and deterioration of the batteries since the batteries themselves are considered the container.

(b) Extent of Deviation – **MINOR** - Williams deviated somewhat from the regulations for accumulation of universal waste batteries and lamps because inspectors documented one bucket of waste batteries where the requirements were not met, one container of waste lamps without an accumulation start date, and three additional instances where Williams failed to demonstrate the time the universal waste had been accumulating.

(c) Multiple/Multi-day –NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit - Economic benefit was evaluated but determined to be negligible.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $260.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Number: 36

Violation Description: Failure to properly train and document training of employees who manage universal waste, in accordance with Utah Admin. Code R315-273-16.

1. Gravity Based Penalty - **$4,500.00**

   (a) Potential for Harm **– MODERATE** – Williams failed to properly train employees who manage universal waste, which poses a medium risk of exposing humans or other environmental receptors to hazardous waste because without the requisite training, Williams' personnel could mismanage universal waste or inadequately respond and implement emergency procedures during an incident. Moreover, failing to properly train employees who manage universal waste may have a medium adverse effect on the regulatory purposes and procedures on implementing the hazardous waste program because universal waste management training is a fundamental part of the program.

   (b) Extent of Deviation – **MAJOR –** Williams deviated from the requirements of this regulation to such an extent that most of the requirements of the regulation were not met because it failed to provide documentation to inspectors that demonstrated training was provided for any of Williams' employees managing universal wastes.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) – NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit - Economic benefits were evaluated and determined that universal training could be added to the hazardous waste management training at negligible cost.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $4,500.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 37, 38, 39

Violation Description: Failure to keep used oil containers closed except when adding or removing used oil, failure to properly manage used oil tanks and container storage areas to prevent releases, and failure to properly label used oil tanks and containers with the words "Used Oil", in accordance with Utah Admin. Code R315-15-2.3(b)(3), (b)(4), and (c)(1).

1. Gravity Based Penalty - **$9,000.00**

   (a) Potential for Harm **– MAJOR** – Williams failed to keep used oil containers closed, manage those containers to prevent releases, and properly label those containers, which creates a relatively high risk of exposing humans or the environment to used oil because (1) containers left open have the potential to spill and may allow precipitation and other contaminants to enter the container, (2) containers could overflow resulting in a release of used oil into the environment, and (3) used oil could be mismanaged if not properly labeled. During the March 14, 2023, inspection, inspectors observed open hoppers filled with rainwater and snowmelt that were overflowing, and instances where Williams failed to properly label containers storing used oil with the words "Used Oil."

   (b) Extent of Deviation – **MAJOR –** Williams deviated from the requirements of these regulations to such an extent that most of the requirements were not met because it did not properly manage used oil tanks and containers by leaving containers open, exposed to the environment, and unlabeled. Inspectors observed four open containers of used oil, releases from four hoppers and secondary containment, and multiple unlabeled containers of used oil.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable)

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – Increased 10%. Williams has a history of noncompliance with these Rules because these compliance issues were previously identified during the 2020 inspection.

   (d) Ability to Pay - NA

   (e) Other Unique Factors - NA

3. Economic Benefit – $1,200.00. Williams saved $1,200 by avoiding compliance with the requirements under Utah Admin. Code R315-15-2.3(b)(3), (b)(4), and (c)(1) because it failed to install hopper covers, which cost $300.00 per hopper, and Williams had four hoppers without covers.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $11,100.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Numbers: 40

Violation Description: Failure to take immediate action in the event of a used oil release to minimize the threat to human health and the environment, stop the release, contain the release, clean the release up, and properly manage the released material, in accordance with Utah Admin. Code R315-15-9.1(a)(1)-(4).

1. Gravity Based Penalty - **$4,100.00**

   (a) Potential for Harm **– MODERATE –** Williams failed to take immediate action to stop the release or stop, contain, or cleanup a release, which poses a medium risk of exposing humans or other environmental receptors to used oil because even small amounts of used oil can contaminate environmental receptors. During the March 14, 2023, inspection, inspectors observed used oil releases from an unidentified machine and four hoppers, and the release from the hoppers was flowing into a storm drain.

   (b) Extent of Deviation – **MAJOR –** Williams deviated from the requirements of these regulations to such an extent that most of the requirements were not met, resulting in substantial noncompliance that led to five separate incidents of used oil releases that were not responded to, stopped, contained, or cleaned up.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) - NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay – NA

   (e) Other Unique Factors – NA

3. Economic Benefit - $210.00. Williams saved $210 by avoiding compliance with Utah Admin. Code R315-15-9.1(a)(1)-(4) because it failed to use a basic spill kit, which costs approximately $210.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $4,310.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Number: 41

Violation Description: Failure of the person responsible for the used oil release to clean up the release and any residue or contaminated soil, water, or other material resulting from the release, in accordance with Utah Admin. Code R315-15-9.3.

1. Gravity Based Penalty - **$3,500.00**

   (a) Potential for Harm **– MODERATE –** Williams failed to immediately clean up releases of used oil, which poses a medium risk of exposing humans or other environmental receptors to used oil because the used oil could enter water sources, contaminating surface and groundwater or the soil.

   (b) Extent of Deviation – **MAJOR –** Williams deviated from the requirements of this regulation to such an extent that most of the requirements were not met, resulting in substantial noncompliance because Williams' personnel did not respond immediately to an active release of used oil. Inspectors documented four containers that were actively releasing used oil where the employee responsible was not taking immediate action to stop the release.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable)

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – Increased 10%. Williams has a history of noncompliance with this Rule because this compliance issue was previously identified during the 2020 inspection.

   (d) Ability to Pay – NA

   (e) Other Unique Factors – NA

3. Economic Benefit – Economic benefit was evaluated and determined negligible since clean up materials were available, but Williams failed to use them.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $3,850.00

NARRATIVE EXPLANATION TO SUPPORT
PENALTY AMOUNT FOR PROPOSED STIPULATED COMPLIANCE ORDER

NOV # 2304034 Violation Number: 42

Violation Description: Failure to provide evidence that hazardous secondary materials are not being speculatively accumulated, in accordance with Utah Admin. Code R315-261-1(c)(8).

1. Gravity Based Penalty – **$4,940.00**

   (a) Potential for Harm **– MODERATE –** Williams speculatively accumulated hazardous secondary materials or failed to provide documentation that those materials are not being speculatively accumulated, which poses a medium adverse effect on the statutory or regulatory purposes or procedures for implementing the hazardous waste program because it inhibits inspectors' ability to ensure wastes are removed in a timely manner and the material meets the exclusions specified in the regulations. Despite repeated requests, Williams failed to document that the plasma spray dust is recyclable, and it has a feasible means of being recycled during the calendar year.

   (b) Extent of Deviation – **MAJOR –** Williams deviated from this regulation to such an extent that most of the requirements were not met, resulting in substantial noncompliance with the prohibition on speculatively accumulating hazardous secondary materials, here, the plasma spray dust.

   (c) Multiple/Multi-day – NA

2. Adjustment Factors (if applicable) - NA

   (a) Good Faith - NA

   (b) Willfulness/Negligence - NA

   (c) History of Compliance or Noncompliance – NA

   (d) Ability to Pay – NA

   (e) Other Unique Factors – NA

3. Economic Benefit – Economic benefit was evaluated but determined to be negligible to record and track accumulation dates.

4. Recalculation of Penalty Based on New Information - NA

TOTAL: $4,940.00

State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF WASTE MANAGEMENT
AND RADIATION CONTROL

Douglas J. Hansen
Director

May 9, 2024

David Holden, Safety and Security Manager
Williams International Co., L.L.C.
3450 Sam Williams Drive
Ogden, UT 84401

CERTFIED MAIL
RETURN RECEIPT REQUESTED
7003 2260 0003 2358 9428

RE: Notice of Violation and Compliance Order No. 2304034
UTD093113900

Dear Mr. Holden:

Enclosed is **NOTICE OF VIOLATION AND COMPLIANCE ORDER (NOV/CO)** Number **2304034,** based on findings documented by Division of Waste Management and Radiation Control (Division) inspectors during a compliance evaluation inspection on March 14, 2023. Please be advised that compliance with the attached ORDER is mandatory and will not relieve Williams International Co., L.L.C. of liability for past violations.

Within 60 days of issuance of the attached ORDER, you are required to submit to the Director of the Division of Waste Management and Radiation Control (Director) written verification that the violations documented in the NOV/CO have been corrected. Please include a description of the corrective actions implemented to ensure these violations do not recur. Your response to the ORDER will not constitute an administrative contest to the attached NOV/CO.

Additionally, at the time of inspection, Division inspectors identified the following violations of the Utah Administrative Code that were corrected as of March 17, 2023:

1. Utah Administrative Code R315-262-262(b)(3) requires a large quantity generator (LQG) to maintain a quick reference guide (QRG) that includes the identification of any hazardous wastes that would require unique or special treatment by medical or hospital staff.

   On March 17, 2023, Mr. Holden provided an updated QRG to the Division via email detailing that no hazardous wastes would require unique or special treatment by medical or hospital staff.

(Over)

195 North 1950 West • Salt Lake City, UT
Mailing Address: P.O. Box 144880 • Salt Lake City, UT 84114-4880
Telephone (801) 536-0200 • Fax (801) 536-0222 • T.D.D 711
www.deq.utah.gov

2. Utah Administrative Code R315-262-262(b)(7) requires an LQG to maintain a QRG that includes the identification of on-site notification systems, including but not limited to fire alarms or smoke alarms.

   On March 17, 2023, Mr. Holden provided an updated QRG to the Division via email with a map showing locations of on-site fire alarms.

You have 30 days from the signature date of the attached NOV/CO to contest it in the manner and within the time period prescribed by Utah Administrative Code R305-7-303.

If you have any questions, please call Deborah Ng at 385-499-0837 or for legal questions, please call Brenden Catt, Assistant Attorney General, at 385-379-2591.

Sincerely,

Douglas J. Hansen, Director
Division of Waste Management and Radiation Control

DJH/DSN/jk

Enclosure: Notice of Violation and Compliance Order No. 2304034

c: Brian Cowan, Health Officer, Weber-Morgan Health Department
Michela Harris, Deputy Director, Weber-Morgan Health Department
Scott Braeden, Environmental Health Director, Weber-Morgan Health Department
Summer Day, Environmental Health Program Manager, Weber-Morgan Health Department
David Holden, Safety and Security Manager, Williams International Co., L.L.C.
(Email and Hard Copy)
Eric Falkenberg, Registered Agent (Hard Copy)
Annette Maxwell, U.S. EPA, Region 8
Kimberly D. Shelley, Executive Director, Utah Department of Environmental Quality (UDEQ)
Stevie Norcross, PhD, Assistant Director,
Division of Waste Management and Radiation Control, UDEQ
Raymond Wixom, Assistant Attorney General, Utah Attorney General's Office
Brenden Catt, Assistant Attorney General, Utah Attorney General's Office

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In the Matter of:	:	**NOTICE OF VIOLATION/ COMPLIANCE ORDER**
Williams International Co., L.L.C. UTD093113900	:	**No. 2304034**

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This **NOTICE OF VIOLATION AND COMPLIANCE ORDER (NOV/CO)** is issued by the Director of the Division of Waste Management and Radiation Control (Director) pursuant to the Utah Solid and Hazardous Waste Act (the Act), Utah Code § 19-6-101 *et seq.*, and Utah Administrative Code R315 (the Rules). The Director has authority to issue such NOTICES and ORDERS in accordance with Utah Code § 19-6-112.

FINDINGS

1. Williams International Co., L.L.C. (Williams) is a Limited Liability Company registered to conduct business in the State of Utah. Williams International Co., L.L.C. is the owner and operator of the Williams International Co., L.L.C. facility (the Facility).

2. The Facility is an industrial jet turbine engine manufacturing facility located at 3450 Sam Williams Drive in Weber County, Utah. Williams operates the Facility under the provisions of the Act and the Rules.

3. Williams is a "person" as defined by Utah Code § 19-1-103(4) and is subject to all applicable provisions of the Act and the Rules.

4. Williams generates hazardous waste acids from metal forming and treatment (EPA waste code D002); acetone/toluene from dip, flush, and spray rinsing (D001, F003, and F005); and potassium hydroxide from stripping and acid/caustic cleaning (D002).

5. Pursuant to Utah Code § 19-6-109, authorized representatives of the Director (inspectors) conducted three compliance evaluation inspections. On August 3, 2016, inspectors conducted their first compliance evaluation inspection at the Facility that resulted in the issuance of a letter from the Division requiring return to compliance dated September 12, 2016. On August 13, 2020, inspectors conducted their second compliance evaluation inspection at the Facility that resulted in the issuance of Warning Letter No. 2011134, dated November 20, 2020. On March 14, 2023, inspectors conducted their third compliance evaluation inspection at the Facility, many of the violations identified in the letter sent to Williams on September 12, 2016, and in Warning Letter No. 2011134 were also identified during the third inspection.

6. Utah Admin. Code R315-262-11 states "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 in order to ensure wastes are properly managed according to applicable regulations." Utah Admin. Code R315-262-11(a) states, "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 such that the hazardous classification of the waste may change." (Emphasis added).

6.1. On March 14, 2023, inspectors documented one 55-gallon drum of waste inside the main building of the Facility labeled "Lenium & Water". A Williams representative told inspectors that the Lenium in the waste generated is hazardous but could not confirm if the contents of the 55-gallon drum were hazardous. Williams failed to make an accurate waste determination at the point of generation.

6.2. On March 14, 2023, inspectors documented 13 additional instances in which Williams failed to make an accurate waste determination at the point of generation of the waste being accumulated onsite. *See* Exhibit 1, Photos 001, 002, 003, 004, 005, 006, 007, 008, and 009 for examples of the additional instances.

7. Utah Admin. Code R315-262-40(a) states, "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."

7.1. On March 14, 2023, inspectors documented Williams was unable to provide records showing that it received a final, signed copy of the manifest from the designated facility for manifests 01605681FLE, 016050447FLE, 015376322FLE, 016047516FLE, 014089347FLE, and 017109320FLE.

8. Utah Admin. Code R315-262-42(a)(2) requires a large quantity generator (LQG) to "submit an Exception Report to the Director if he 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."

8.1. On March 14, 2023, inspectors documented Williams failed to submit Exception Reports to the Director for manifests 015376322FLE, 016047516FLE, and 014089347FLE for which Williams had 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.

9. Utah Admin. Code R315-262-261(a) states "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."

9.1. On March 14, 2023, inspectors were provided with a contingency plan for review. The contingency plan did not specifically address the actions facility personnel would take in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water at the Facility.

9.2. On March 14, 2023, Williams failed to provide emergency procedures in the contingency plan detailing actions that will be taken by the emergency coordinator to immediately identify the character, exact source, amount and areal extent of any released material in the event of a fire, explosion or release.

10. Utah Admin. Code R315-262-261(c) states, "The plan shall describe arrangements agreed to with the local police department, fire department, other emergency response contractors, equipment suppliers, local hospitals or, if applicable, the Local Emergency Planning Committee, pursuant to Section R315-262-256."

    10.1. On March 14, 2023, the inspectors reviewed Williams' contingency plan. The plan did not describe arrangements agreed to with the local police department, fire department, other emergency response contractors, equipment suppliers, local hospitals or, if applicable, the Local Emergency Planning Committee, pursuant to Utah Admin. Code R315-262-256. Williams did not provide documentation that arrangements were agreed to with the required agencies.

11. Utah Admin. Code R315-262-261(d) states, "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."

    11.1. On March 14, 2023, the contingency plan listed two representatives to be notified in the event of a spill that included a hazardous chemical or hazardous waste. Williams could not provide training records for the primary emergency coordinator, listed in the contingency plan, to show he is qualified to act as such.

12. Utah Admin. Code R315-262-261(f) states "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."

    12.1. On March 14, 2023, the contingency plan included an evacuation plan with evacuation routes. However, no alternate evacuation routes were identified in cases where the primary routes could be blocked by releases of hazardous waste or fires.

13. Utah Admin. Code R315-262-262(b)(4) requires the quick reference guide to include "a map of the facility showing where hazardous wastes are generated, accumulated and treated, and routes for accessing these wastes."

    13.1. On March 14, 2023, inspectors were provided a quick reference guide for review. The quick reference guide did not include a map showing where hazardous wastes are generated, accumulated, and treated or routes for accessing these wastes.

14. Utah Admin. Code R315-262-262(b)(6) requires the quick reference guide to include "the locations of water supply, e.g., fire hydrant and its flow rate."

    14.1. On March 14, 2023, the quick reference guide did not include the locations of water supply, for example, a fire hydrant and its flow rate.

15. Utah Admin. Code R315-262-251 states, "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."

    15.1. On March 14, 2023, inspectors observed a green liquid, that a Williams representative assumed was Glycol, spilling from the top of a tote of "Missile Lube," down the side, onto the ground, and toward a storm drain. A Williams representative claimed an employee must have been pouring the purported Glycol into the tote of "Missile Lube," spilled it and "decided to stop and not clean it up."

    15.2. On March 14, 2023, inspectors documented two additional instances in which Williams failed to maintain and operate its facility to minimize the possibility of unplanned sudden or non-sudden releases of hazardous waste or hazardous waste constituents. *See* Exhibit 1, Photos 011, 012, and 013 for examples of the additional instances.

16. Utah Admin. Code R315-262-265(b) states, "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. The emergency coordinator may do this by observation or review of the facility records or manifests and, if necessary, by chemical analysis."

    16.1. On March 14, 2023, inspectors observed a release of green liquid, that a Williams representative assumed was Glycol, spilling from the top of a tote of "Missile Lube," down the side, onto the ground, and toward a storm drain. The emergency coordinator did not immediately identify the character, exact source, amount, and areal extent of the released Glycol.

    16.2. Additional releases were identified during the March 14, 2023, inspection, including (1) a machine that Williams employees were unable to identify had oil accumulating on top of the machine and leaking onto the ground near a storm drain; and (2) four open "hoppers" filled with used oil residues mixed with rainwater and snowmelt was spilling onto the ground and into a storm drain. Williams failed to take all reasonable measures necessary to ensure that releases were stopped, collected and contained, and managed appropriately.

17. Utah Admin. Code R315-262-254(a) states, "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."

    17.1. On March 14, 2023, inspectors documented Williams personnel did not have immediate access to emergency communication devices when hazardous waste is being handled, mixed, spread, or poured, and Williams is not exempt from having such a device under Utah Admin. Code R315-262-252.

18. Utah Admin. Code R315-262-255 states, "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."

18.1. On March 14, 2023, inspectors observed inadequate aisle space in the Satellite Accumulation Area Cage (SAA Cage) to allow for the unobstructed movement of personnel, fire protection equipment, spill control equipment and decontamination equipment to areas where hazardous waste was being stored.

19. Utah Admin. Code R315-262-256(a) states "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."

19.1. On March 14, 2023, Williams failed to provide documentation of arrangements or attempts to make arrangements with state emergency response teams, emergency response contractors, and equipment suppliers. The inspectors communicated this requirement to Williams during the inspection.

20. Utah Admin. Code R315-262-17(a)(7)(i)(A) states, "Facility personnel shall successfully complete a program of classroom instruction, online training, e.g., computer-based or electronic, or on-the-job training that teaches them to perform their duties in a way that ensures compliance with this part. The large quantity generator shall ensure that this program includes all the elements described in the document required under Subsection R315-262-17(a)(7)(iv)."

20.1. On March 14, 2023, Williams failed to provide inspectors with documentation showing facility personnel have successfully completed a training program that teaches them to perform their duties in a way that ensures compliance with the applicable rules.

20.2. On March 14, 2023, Williams failed to provide inspectors with documentation showing the identified emergency coordinator has ever received adequate training to successfully perform their job duties.

21. Utah Admin. Code R315-262-17(a)(7)(i)(B) states, "This [training] 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."

21.1. On March 14, 2023, Williams failed to provide inspectors with documentation showing the training program is directed by a person trained in hazardous waste management procedures and contingency plan implementation.

22. Utah Admin. Code R315-262-17(a)(7)(ii) states, "Facility personnel shall successfully complete 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 shall not work in unsupervised positions until they have completed the training standards of Subsection R315-262-17(a)(7)(i)."

22.1. On March 14, 2023, Williams failed to provide inspectors with documentation showing employees completed the training program required in Utah Admin. Code R315-262-17(a)(7)(i) within six months after the date of employment or assignment to the Facility, or a new position at the Facility, whichever was later.

22.2. On March 14, 2023, Williams failed to provide inspectors with documentation showing the emergency coordinators had completed the required training program within six months after the date of their employment or assignment to the Facility, or to a new position at the Facility, whichever was later.

23. Utah Admin. Code R315-262-17(a)(7)(iii) states "Facility personnel shall take part in an annual review of the initial training required in Subsection R315-262-17(a)(7)(i)."

23.1. On March 14, 2023, Williams failed to provide inspectors with documentation showing employees having completed an annual review of the initial training required in Utah Admin. Code R315-262-17(a)(7)(i).

24. Utah Admin. Code R315-262-17(a)(7)(iv)(A) requires large quantity generators to maintain and record "The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job."

24.1. On March 14, 2023, Williams failed to maintain a job title for each position at the Facility related to hazardous waste management and the name of the employee filling each job.

25. Utah Admin. Code R315-262-17(a)(7)(iv)(B) requires large quantity generators to maintain "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 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."

25.1. On March 14, 2023, Williams failed to provide inspectors with a written job description for each position listed under Utah Admin. Code R315-262-17(a)(7)(iv)(A), including the requisite skill, education, or other qualification and duties of Facility personnel assigned to each position.

26. Utah Admin. Code R315-262-17(a)(7)(iv)(C) requires large quantity generators to maintain "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)"

26.1. On March 14, 2023, Williams failed to provide inspectors with 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 Utah Admin. Code R315-262-17(a)(7)(iv)(A).

27. Utah Admin. Code R315-262-17(a)(7)(iv)(D) requires large quantity generators to maintain "Records that document that the training or job experience, required under Subsections R315-262-17(a)(7)(i), (ii), and (iii), has been given to, and completed by, facility personnel."

27.1. On March 14, 2023, Williams failed to provide inspectors with records documenting that the training, or job experience has been given to, and completed by, Facility personnel.

28. Utah Admin. Code R315-262-17(a)(5)(i)(A) requires a large quantity generator to mark or label its containers with the words "Hazardous Waste."

28.1. On March 14, 2023, inspectors documented one 55-gallon drum inside the Facility labeled "Lenium & Water." Williams told inspectors the Lenium waste generated is hazardous, the 55-gallon drum was not marked with the words "Hazardous Waste" or "Hazardous Waste Pending Analysis."

28.2. On March 14, 2023, inspectors documented 23 additional instances in which Williams failed to mark or label its containers with the words "Hazardous Waste." *See* Exhibit 1, Photos 003, 005, 010, 014, 015, and 016 for examples of the additional instances.

29. Utah Admin. Code R315-262-17(a)(5)(i)(B) and R315-262-15(a)(5)(ii) require a large quantity generator to mark or label its containers with an indication of the hazards of the contents, examples include, but are not limited to: the applicable hazardous waste characteristic(s), i.e., ignitable, corrosive, reactive, toxic.

29.1. On March 14, 2023, inspectors documented a total of 23 containers without a marking or label of the indication of the hazards of their contents between the following areas, the SAA Cage, the first Central Accumulation Area (CAA), and the CAA near the Facility's "Blue Phoenix" building. Inspectors identified 4 in the SAA Cage, 11 in the first CAA, and 8 in the CAA located near the Facility's "Blue Phoenix" building without a marking or label of the indication of the hazards of their contents.

30. Utah Admin. Code R315-262-17(a)(5)(i)(C) requires a large quantity generator to mark or label its containers with "[t]he date upon which each period of accumulation begins clearly visible for inspection on each container."

30.1. On March 14, 2023, inspectors documented two 55-gallon drums of potassium hydroxide that were not marked with an accumulation start date.

31. Utah Admin. Code R315-262-252(c) requires the large quantity generator to have 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 in all areas deemed applicable by Utah Admin. Code R315-262-250.

31.1. On March 14, 2023, Williams failed to show inspectors the Facility has portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment in all applicable areas. Williams provided the Director with evidence of fire control equipment inside the Facility but didn't provide evidence of fire control equipment outside the Facility.

32. Utah Admin. Code R315-262-17(a)(1)(ii) requires the large quantity generator to immediately transfer hazardous waste from a container that is not in good condition, or if it begins to leak, to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this section.

32.1. On March 14, 2023, inspectors documented a 55-gallon drum containing hazardous waste that was not in good condition because it was beginning to deteriorate and rust. Williams failed to transfer the waste to a container in good condition or manage it in some other way that complies with the conditions for exemption from the applicable section.

33. Utah Admin. Code R315-262-17(a)(1)(iv)(A) requires a container holding hazardous waste to be closed during accumulation, except when it is necessary to add or remove waste.

33.1. On March 14, 2023, inspectors documented instances in which Williams failed to keep containers in the CAA holding hazardous waste closed except when it is necessary to add or remove waste. *See* Exhibit 1, Photos 001, 002, 007, 008, and 017.

34. Utah Admin. Code R315-262-17(a)(1)(v) requires a large quantity generator to inspect central accumulation areas at least weekly looking for deterioration of containers caused by corrosion or other factors and for leaks or spills.

    34.1. On March 14, 2023, inspectors documented that Williams did not conduct weekly inspections of central accumulation areas between December 24, 2021, and January 7, 2022, and between January 13, 2023, and January 27, 2023.

    34.2. On March 14, 2023, inspectors documented one rusted and deteriorated 55-gallon drum in the CAA.

    34.3. On March 14, 2023, inspectors documented three cardboard "Carborex" containers that were wet and beginning to deteriorate near the CAA.

35. Utah Admin. Code R315-262-15(a) states, "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)."

    35.1. On March 14, 2023, inspectors documented three 55-gallon drums and five smaller containers of hazardous waste accumulating in the SAA Cage. The SAA Cage is neither at or near the point of generation where wastes initially accumulate and is not under the control of the operator of the process generating these wastes.

36. Utah Admin. Code R315-262-15(a)(4)(i) requires a container holding hazardous waste to be closed at all times during accumulation except when adding, removing or consolidating waste.

    36.1 On March 14, 2023, inspectors documented 11 instances in which Williams failed to keep containers in the SAA Cage holding hazardous waste closed except when necessary to add or remove waste. *See* Exhibit 1, Photos 003, 005, 007, 008, 009, 010, 014, 015, 016, and 020 for examples.

37. Utah Admin. Code R315-273-14(a) requires a small quantity handler of universal waste to label universal waste batteries, that is, each battery, or a container in which the batteries are contained, with any one of the following phrases: "Universal Waste-Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)."

    37.1. On March 14, 2023, inspectors documented an open container collecting universal waste batteries in the SAA Cage not marked with any one of the following phrases: "Universal Waste Battery(ies)," "Waste Battery(ies)," or "Used Battery(ies)."

38. Utah Admin. Code R315-273-14(e) requires each container holding lamps to be marked clearly with one of the following phrases: "Universal Waste – Lamps," "Waste Lamps," or "Used Lamps."

    38.1. On March 14, 2023, inspectors documented a container of fluorescent bulbs in the SAA Cage not marked with any one of the following phrases: "Universal Waste – Lamps," "Waste Lamps," or "Used Lamps."

39. Utah Admin. Code R315-273-15(a) states, "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."

    39.1. On March 14, 2023, inspectors documented one bucket of universal waste batteries with an accumulation start date of August 17, 2020, and the requirements of Subsection R315-273-15(b) were not met.

40. Utah Admin. Code R315-273-15(c) states, "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."

    40.1. On March 14, 2023, inspectors documented one container of universal waste lamps in the SAA Cage without an accumulation start date. Williams employees told inspectors they could not demonstrate how long the items had been accumulating onsite.

    40.2. On March 14, 2023, inspectors documented three additional instances in which Williams failed to demonstrate the length of time universal waste had accumulated on site. *See* Exhibit 1, Photos 017, 018, and 019.

41. Utah Admin. Code R315-273-16 states, "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."

    41.1. On March 14, 2023, Willliams failed to provide documentation showing all employees who handle or manage universal waste have been trained or informed of proper handling and emergency procedures.

42. Utah Admin. Code R315-15-2.3(b)(3) requires used oil storage tanks and containers to be closed except when adding or removing used oil.

    42.1. On March 14, 2023, inspectors documented four instances in which Williams failed to keep used oil containers closed during storage. *See* Exhibit 1, Photos 001, 006, 011, 021, and 022 for additional examples.

43. Utah Admin. Code R315-15-2.3(b)(4) requires used oil tanks and container storage areas to be managed to prevent releases of used oil to the environment.

    43.1. On March 14, 2023, inspectors documented four "hoppers" full of rainwater, snow melt, and used oil spilling onto the ground and into a storm drain.

43.2. On March 14, 2023, inspectors documented one containment under a drum crusher with a spill of used oil directly in front of the containment.

44. Utah Admin. Code R315-15-2.3(c)(1) requires containers and aboveground tanks used to store used oil at a generator facility to be clearly labeled with the words "Used Oil."

44.1. On March 14, 2023, inspectors documented one 55-gallon drum storing used oil that was not marked with the words "Used Oil."

44.2. On March 14, 2023, inspectors documented four additional instances in which Williams failed to mark or label containers storing used oil with the words "Used Oil." *See* Exhibit 1, Photos 006, 011, 021, and 022.

45. Utah Admin. Code R315-15-9.1(a)(1)-(4) states, "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 [by] (1) Stop[ing] the release; (2) Contain[ing] the release; (3) Clean[ing] up and manag[ing] properly the released material as described in R315-15-9.3; and (4) If necessary, repair[ing] or replac[ing] any leaking used oil tanks, containers, and ancillary equipment prior to returning them to service."

45.1. On March 14, 2023, inspectors documented a leak/spill pooling onto the ground from an unidentified machine that Williams' employees claimed was in the process of being moved to another area. Williams did not immediately take appropriate action to minimize the threat this release of used oil had to human health or the environment.

45.2. On March 14, 2023, inspectors documented four "hoppers" with used oil actively leaking onto the pavement and into a nearby storm drain. Williams did not immediately take appropriate action to minimize the threat this release of used oil had to human health or the environment.

46. Utah Admin. Code R315-15-9.3 states, "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 U.S. EPA Regional Screening Levels. The cleanup or other required actions shall be at the expense of the person responsible for the release."

46.1. On March 14, 2023, inspectors documented four "hoppers" with used oil leaking onto the pavement and into a nearby storm drain. Williams failed to clean up the released used oil and any residue or contaminated soil, water or other material resulting from the release.

47. Utah Admin. Code R315-261-1(c)(8) states, "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 percent 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 percent requirement is to be applied to each material of the same type, e.g., slags from a single smelting process, that is recycled in the same way, i.e., from which the same material is recovered 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."

47.1. On March 14, 2023, a Williams employee told inspectors the "Plasma Spray Dust" material is sent out for recycling, but inspectors were not provided with documentation showing the material is in fact recycled.

47.2. On March 27, 2023, the Division sent a follow-up request for information that the "Plasma Spray Dust" could be recycled and that the material recycled equals at least 75% by weight or volume of the amount of the "Plasma Spray Dust" accumulated at the beginning of the calendar year, commencing January 1st. Williams failed to provide this information to the Division.

DETERMINATION OF VIOLATIONS

In accordance with Utah Code § 19-6-101 *et seq.*, and based on the foregoing FINDINGS, Williams International Co., L.L.C. has violated provisions of the Act and the Rules applicable to its facility. Specifically, Williams International Co., L.L.C. has violated the following:

1. Utah Admin. Code R315-262-11, by failing to make accurate waste determinations on waste streams at the point of generation. *See* Finding 6.
2. Utah Admin. Code R315-262-40(a), by failing to provide records showing it received a final signed copy of the manifest from the designated facility for six manifests. *See* Finding 7.
3. Utah Admin. Code R315-262-42(a)(2), by failing to provide records showing exception reports have not been required or that they have been filed. *See* Finding 8.
4. Utah Admin. Code R315-262-261(a), by failing to describe the actions facility personnel will 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. *See* Finding 9.
5. Utah Admin. Code R315-262-261(c), by failing to describe arrangements agreed to with the local police department, fire department, other emergency response contractors, equipment suppliers, local hospitals, or if applicable, the Local Emergency Planning Committee, pursuant to Section R315-262-256. *See* Finding 10.
6. Utah Admin. Code R315-262-261(d), by failing to list names and emergency telephone numbers of all persons qualified to act as emergency coordinator in the contingency plan. *See* Finding 11.
7. Utah Admin. Code R315-262-261(f), by failing to include an evacuation plan that identifies alternate evacuation routes in cases where the primary routes could be blocked by releases of hazardous waste or fires. *See* Finding 12.
8. Utah Admin. Code R315-262-262(b)(4), by failing to include a map showing where hazardous wastes are generated, accumulated, and treated or routes for accessing these wastes in the QRG. *See* Finding 13.
9. Utah Admin. Code R315-262-262(b)(6), by failing to include the locations of water supply, for example, a fire hydrant and its flow rate in the QRG. *See* Finding 14.
10. Utah Admin. Code R315-262-251, by failing to 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. *See* Finding 15.
11. Utah Admin. Code R315-262-265(b), by failing to immediately identify the character, exact source, amount, and areal extent of released material. *See* Finding 16.
12. Utah Admin. Code R315-262-254(a), by failing to provide personnel with immediate access to emergency communication devices when hazardous waste is being handled, mixed, spread, or poured. *See* Finding 17.
13. Utah Admin. Code R15-262-255, by failing to maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operations in an emergency. *See* Finding 18.
14. Utah Admin. Code R315-262-256(a). by failing to provide documentation of agreements with state emergency response teams, emergency response contractors, and equipment suppliers, or documentation showing the need for the services of local police, emergency response contractors, etc. *See* Finding 19.
15. Utah Admin. Code R315-262-17(a)(7)(i)(A), by failing to provide documentation showing that any personnel have received training. *See* Finding 20.

16. Utah Admin. Code R315-262-17(a)(7)(i)(B), by failing to provide documentation showing that any personnel have received training that includes contingency plan implementation. *See* Finding 21.
17. Utah Admin. Code R315-262-17(a)(7)(ii), by failing to provide documentation showing that any personnel have received adequate training implementation. *See* Finding 22.
18. Utah Admin. Code R315-262-17(a)(7)(iii), by failing to provide documentation showing that any personnel have received adequate training implementation. *See* Finding 23.
19. Utah Admin. Code R315-262-17(a)(7)(iv)(A), by failing to maintain a job title for each position at the Facility related to hazardous waste management and the name of the employee filing each job. *See* Finding 24.
20. Utah Admin. Code R315-262-17(a)(7)(iv)(B), by failing to provide a written job description for each position listed under R315-262-17(a)(7)(iv)(A), including the requisite skill, education, or other qualification and duties of facility personnel assigned to each position. *See* Finding 25.
21. Utah Admin. Code R315-262-17(a)(7)(iv)(C), by failing to provide 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). *See* Finding 26.
22. Utah Admin. Code R315-262-17(a)(7)(iv)(D), by failing to provide records documenting that the training, or job experience has been given to, and completed by, facility personnel. *See* Finding 27.
23. Utah Admin. Code R315-262-17(a)(5)(i)(A), by failing to mark or label its containers with the words "Hazardous Waste". *See* Finding 28.
24. Utah Admin. Code R315-262-17(a)(5)(i)(B) and R315-262-15(a)(5)(ii), by failing to mark or label its containers with an indication of the hazards of the contents. *See* Finding 29.
25. Utah Admin. Code R315-262-17(a)(5)(i)(C), by failing to mark containers with accumulation start dates. *See* Finding 30.
26. Utah Admin. Code R315-262-252(c), by failing to maintain portable fire extinguishers, fire control equipment, spill control equipment and decontamination equipment in all applicable areas. *See* Finding 31.
27. Utah Admin. Code R315-262-17(a)(1)(ii), by failing to immediately transfer hazardous waste from a container holding that is not in good condition, or if it begins to leak, to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this section. *See* Finding 32.
28. Utah Admin. Code R315-262-17(a)(1)(iv)(A), by failing to keep containers holding hazardous waste closed during accumulation. *See* Finding 33.
29. Utah Admin. Code R315-262-17(a)(1)(v), by failing to complete required weekly inspections. *See* Finding 34.
30. Utah Admin. Code R315-262-15(a), by failing to ensure the SAA is at or near the point of generation and under the control of the operator. *See* Finding 35.
31. Utah Admin. Code R315-262-15(a)(4)(i), by failing to keep a container holding hazardous waste closed at all times during accumulation except when adding, removing, or consolidating waste. *See* Finding 36.
32. Utah Admin. Code R315-273-14(a), by failing to label containers holding universal waste batteries with one of the following phrases: "Universal Waste-Battery(ies)," or "Waste Battery(ies)," or "Used Battery(ies)." *See* Finding 37.
33. Utah Admin. Code R315-273-14(e), by failing to label containers of universal waste lamps with one of the following phrases: "Universal Waste Lamps," "Waste Lamps," or "Used Lamps." *See* Finding 38.
34. Utah Admin. Code R315-273-15(a), by accumulating universal waste on site for more than one year. *See* Finding 39.
35. Utah Admin. Code R315-273-15(c), by failing to demonstrate the length of time universal waste has accumulated on site. *See* Finding 40.

36. Utah Admin. Code R315-273-16, by failing to provide documentation showing all employees who handle or manage universal waste have been trained or informed of proper handling and emergency procedures. *See* Finding 41.
37. Utah Admin. Code R315-15-2.3(b)(3), by failing to keep tanks and containers for storage closed during storage except when adding or removing used oil. *See* Finding 42.
38. Utah Admin. Code R315-15-2.3(b)(4), by failing to manage tanks and containers in a way to prevent releases of used oil to the environment. *See* Finding 43.
39. Utah Admin. Code R315-15-2.3(c)(1), by failing to clearly mark or label containers storing used oil with the words "Used Oil". *See* Finding 44.
40. Utah Admin. Code R315-15-9.1(a)(1)-(4), by failing to immediately take appropriate action to minimize the threat to human health and the environment, stop the release, contain the release, clean up, and properly manage the released material as described in R315-15-9.3. *See* Finding 45.
41. Utah Admin. Code R315-15-9.3, by failing to clean up any released material as well as any residue or other contaminated materials. *See* Finding 46.
42. Utah Admin. Code R315-261-1(c)(8), by speculatively accumulating hazardous secondary materials. *See* Finding 47.

ORDER

Williams International Co., L.L.C. is hereby ordered to correct these violations. Within 30 days of the signature date of this NOV/CO, Williams International Co., L.L.C. shall submit to the Director a written statement describing the following information in detail:

a. The cause of each violation;
b. The specific corrective actions taken, results achieved, and applicable dates;
c. If future corrective actions are proposed, the specific corrective actions and proposed completion dates, including intermediate milestones, as applicable; and
d. How the corrective actions will prevent similar violations from recurring.

In addition, within 30 days of the signature date of this NOV/CO, Williams International Co., L.L.C. shall:

1. Provide the Director with accurate hazardous waste determination documentation for all waste streams.
2. Provide the Director with a plan that demonstrates how Williams will track the status of its manifests to determine whether an Exception Report is required.
3. Provide the Director with documentation showing all drums containing hazardous waste are correctly labeled per DOT and RCRA requirements.
    a. Provide the Director with training records to document that all employees handling these containers are properly trained in labeling and placarding requirements for both RCRA and DOT.
4. Provide the Director with documentation demonstrating Williams has made or attempted to make arrangements to familiarize the local police, fire department, hospitals, and other applicable emergency response teams with the layout of the Facility, including entrances and evacuation routes, character of the hazardous waste managed at the Facility, and locations where facility personnel normally work.
5. Provide the Director with documentation demonstrating a primary emergency authority has been assigned to a specific police or fire department in the event more than one may respond to an emergency.

6. Provide the Director with a revised contingency plan in accordance with Utah Admin. Code R315-262-261 that includes the following:
    a. A description of arrangements agreed to by local police, fire department, hospitals, contractors, and state and local emergency response teams;
    b. A description of the names and emergency telephone numbers of all persons qualified to act as emergency coordinator;
    c. An evacuation plan that includes routes and alternate routes if the exit flow is in the direction of the release or emergency;
    d. Specific procedures that the emergency coordinator will follow to immediately identify the character, source, amount, and extent of the released material;
    e. Specific procedures for the emergency coordinator to follow in order to assess possible hazards to human health and the environment in the event of an emergency;
    f. Specific procedures to prevent the spread of an incident to other hazardous wastes/materials at the Facility;
    g. Measures to monitor leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment when it is necessary to shut-down operations as a response to an incident.
    h. Specific procedures to follow to manage the hazardous waste/materials generated as a result of an incident;
    i. Update the 15-day reporting requirement to include the name, address, and telephone number of the Facility; and
    j. Procedures for employees to use following the implementation of the contingency plan to ensure the equipment listed in the contingency plan is cleaned and fit for use prior to resuming activities at the Facility.
7. Provide the Director with a revised Quick Reference Guide that includes the following:
    a. A map showing where hazardous wastes are generated and routes for accessing the wastes; and
    b. Locations of the water supply and flow rates.
8. Provide the Director with documentation demonstrating the revised contingency plan and Quick Reference Guide have been provided to the applicable emergency response teams and the Director.
9. Provide documentation showing that all employees handling, managing, or generating hazardous waste are trained on the contingency plan. Provide this training documentation and a list of who has completed the training to the Director.
10. Provide the Director with three years' worth of training records for the identified emergency coordinator(s) and the identified alternative(s) to show they are qualified to hold this position.
11. Provide the Director with training documentation showing all employees handling, managing, or generating hazardous wastes are properly trained for their job duties and have completed an annual review of the initial training received.
12. Provide the Director with documentation demonstrating that Williams maintains a job title for each position at the Facility, the name of the person filling such positions, and a written job description for each position listed under Utah Admin. Code R315-262-17(a)(7)(iv)(A).
13. Provide the Director with evidence (e.g., photographs, manifests, etc.) that the containers in Exhibit 1 have been properly labeled and managed.
14. Provide the Director with evidence demonstrating all accumulation areas maintain adequate aisle spacing to allow unobstructed movement of emergency personnel and spill equipment.
15. Provide the Director with copies of your training program that includes procedures for using, inspecting, repairing, and replacing facility emergency equipment; key parameters for automatic waste cut-off systems; communications or alarm systems; response to fires or explosions; response to groundwater contamination incidents; and shutdown of operations. Williams shall provide the Director with evidence that the facility has required emergency alarm systems in all necessary areas, including outside areas.

16. Provide the Director with documentation of procedures used to ensure the Facility will be operated in a way to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents.
17. Complete weekly accumulation area inspections to ensure drums are free of leaks and spills and are not deteriorated. Provide three months of weekly inspection logs to the Director.
18. Provide the Director with documentation of procedures for personnel to follow when they identify a deteriorated container, and leaks or spills.
19. Provide the Director with evidence showing all satellite accumulation areas are at or near the point of generation and under the control of the operator.
20. Provide the Director with documentation of procedures for personnel to follow to ensure hazardous waste in excess of 55-gallons and/or 1 quart of acutely hazardous waste in the satellite accumulation area are moved to the CAA within 72 consecutive hours.
21. Provide the Director with training records demonstrating all employees handling universal waste have been properly trained.
22. Provide the Director with documentation demonstrating universal wastes are not on-site for longer than one year and are properly labeled per the universal waste requirements, including the type of waste and accumulation start date.
23. Provide training for all employees dealing with used oil showing procedures for personnel to follow in the event of a spill or release, management practices to prevent releases of used oil, and proper labeling and marking techniques for tanks or containers of used oil. Provide this training documentation and a list of who has completed the training to the Director.
24. Clean up any released used oil as well as any residue or other contaminated materials and provide evidence to the Director (e.g., photographs) that such oil, residue, or other contaminated materials have been cleaned up.
25. Provide the Director with documentation demonstrating Williams' hazardous secondary materials management, including an Emergency Preparedness and Response Plan, in accordance with Utah Admin. Code R315-261-410 and R315-261-411.
26. Provide the Director with training records demonstrating all employees handling and managing hazardous secondary materials are properly trained.
27. Provide the Director with documentation that Williams has notified as a facility managing hazardous secondary materials using EPA Form 8700-12.

COMMUNICATION WITH THE DIRECTOR

For the purpose of compliance with this NOV/CO or to provide additional information, the Director's mailing address is:

Douglas J. Hansen, Director
Division of Waste Management and Radiation Control
P.O. Box 144880
Salt Lake City, UT 84114-4880

Alternatively, documents **OTHER THAN AN ADMINISTRATIVE CONTEST TO THIS NOV/CO** may be submitted electronically to the following email address: dwmrcsubmit@utah.gov. **DO NOT** submit any documents or information via email that is confidential, proprietary, or for which you wish to make a claim of business confidentiality. All such documents and information **MUST** be submitted using the mailing address above.

OPPORTUNITY FOR HEARING

This NOTICE OF VIOLATION AND COMPLIANCE ORDER is effective immediately and shall become final unless Williams International Co., L.L.C. administratively contests it. Failure to contest this NOTICE OF VIOLATION AND COMPLIANCE ORDER in the manner and within the time period prescribed by Utah Admin. Code R305-7-303 constitutes a waiver of any right of administrative contest, reconsideration, review, or judicial appeal.

Utah Code § 19-6-113(2) provides that violation of any order, plan, rule, or other requirement issued or adopted under Title 19, Ch. 6, Pt. 1 may be subject to a civil penalty of up to $13,000 per day for each day of violation.

Dated this 9th day of May, 2024.

By: Douglas J. Hansen

Douglas J. Hansen, Director
Division of Waste Management and Radiation Control

CERTIFICATE ●F MAILING

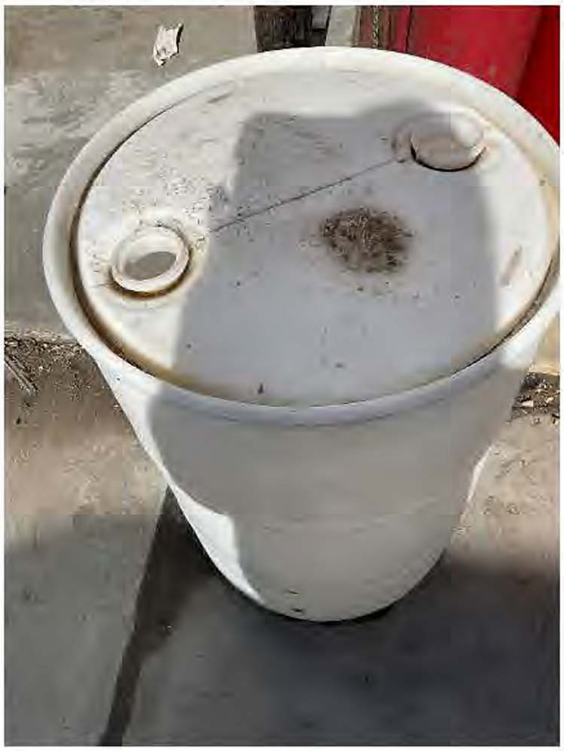
I HEREBY CERTIFY that I mailed a true and correct copy of the foregoing NOTICE ●F VIOLATION AND COMPLIANCE ORDER on the 9th of May, 2024 by US Certified Mail, Return receipt Requested, to:

David Holden, Safety and Security Manager
Williams International Co., L.L.C.
3450 Sam Williams Drive
Ogden, UT 84401

CERTFIED MAIL
RETURN RECEIPT REQUESTED
7003 2260 0003 2358 9428

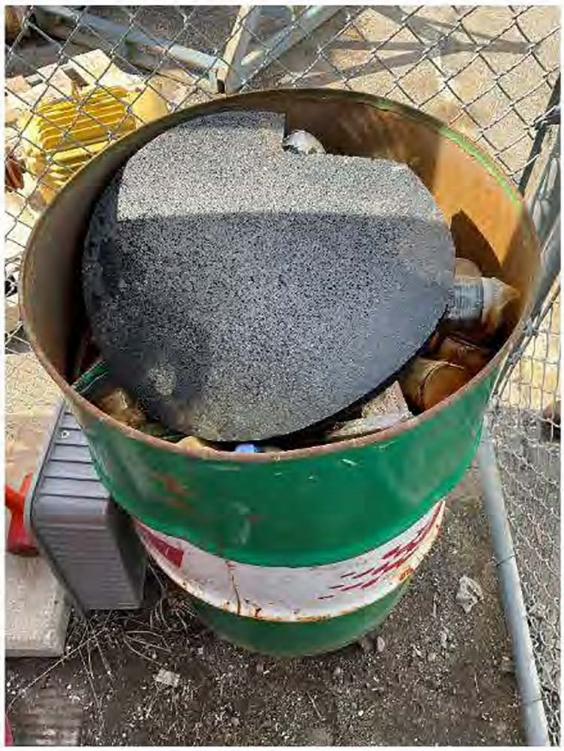
Jordan Kerns

Exhibit 1



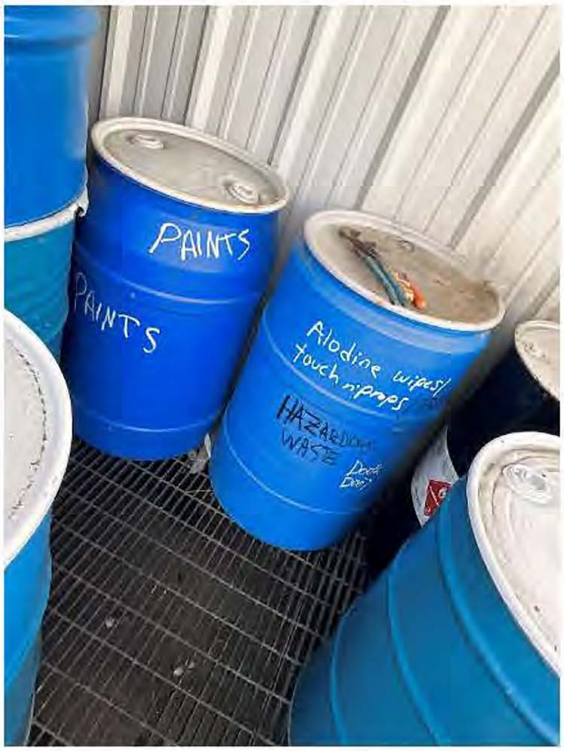
001 March 14, 2023 Williams International Co.

Open (cap loose) unlabeled 55-gallon drum adjacent to the "Plasma Spray Dust Collection."



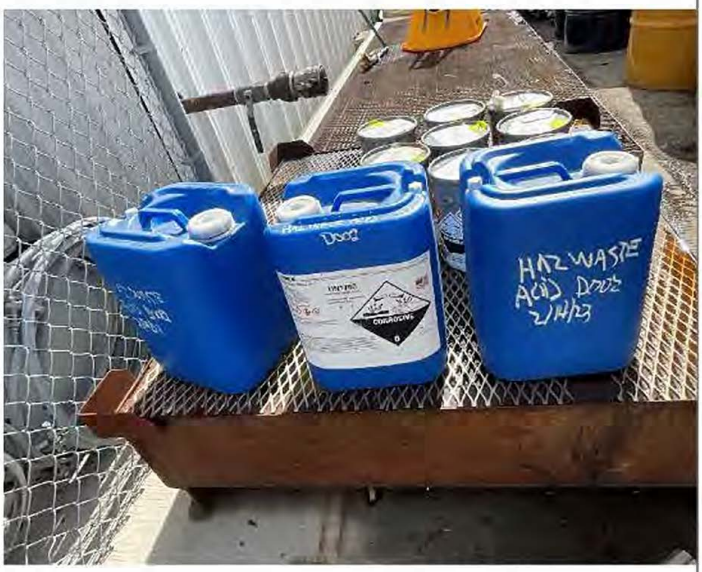
002 March 14, 2023 Williams International Co.

Open, unlabeled, 55-gallon drum accumulating various waste aerosol cans, along with other miscellaneous items in the SAA Cage.



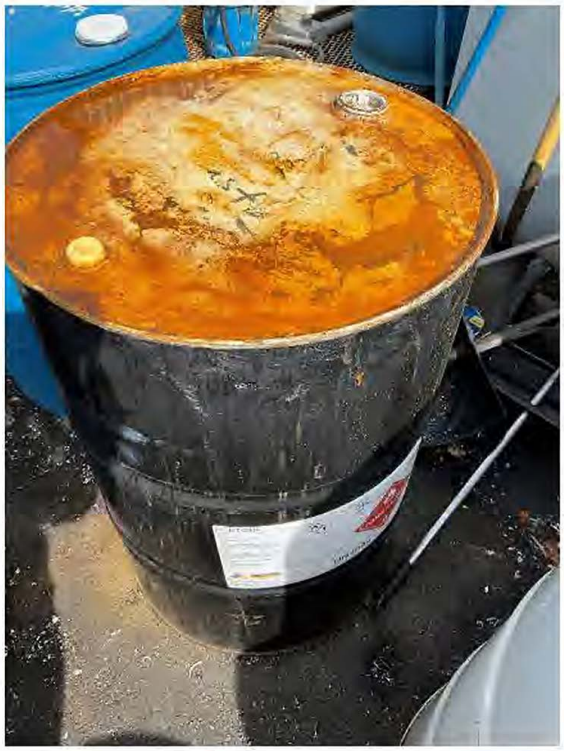
003 March 14, 2023 Williams International Co.

A 55-gallon drum labeled "Paints" but not "Hazardous Waste" or an Indication of the Hazards stored in the SAA cage.



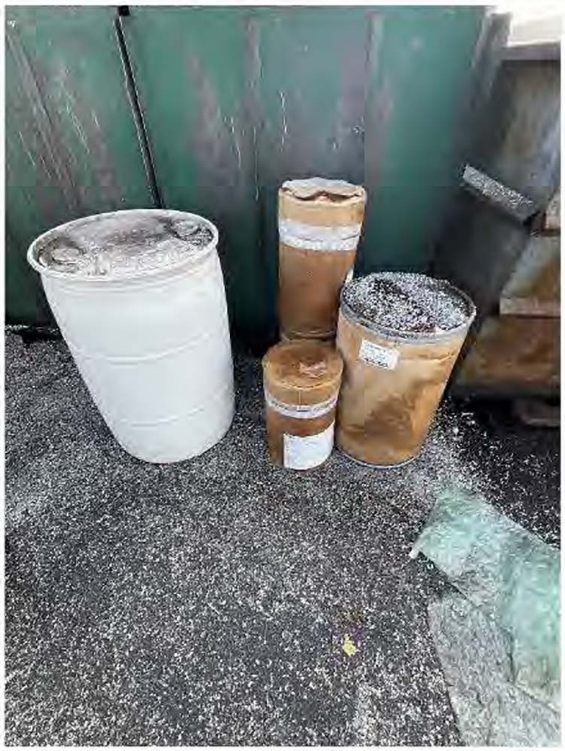
004 March 14, 2023 Williams International Co.

Three blue containers marked as hazardous waste were located in an unnamed storage area not in the CAA.



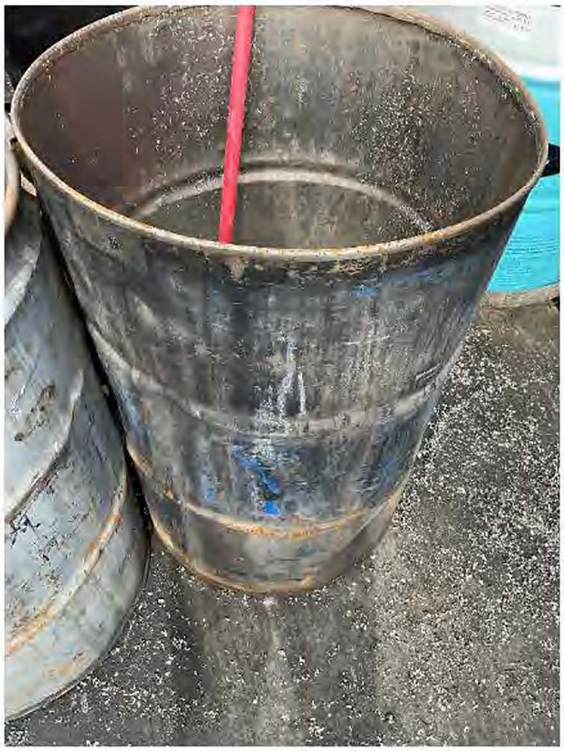
005 March 14, 2023 Williams International Co.

A 55-gallon drum with no indication of accumulation start date or marking of the words "Hazardous Waste" in the CAA.



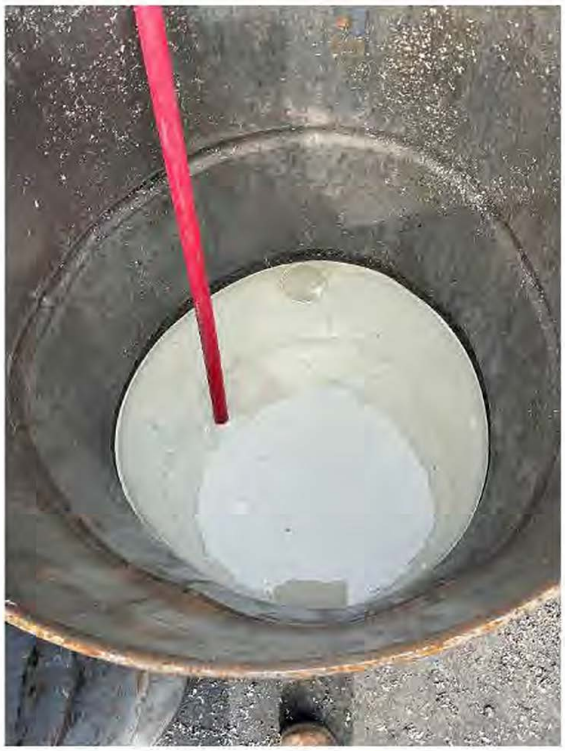
006 March 14, 2023 Williams International Co.

A white, unlabeled 55-gallon container accumulating in the CAA. Three stained and wet cardboard containers that were not being managed as a valuable commodity. Two of the stained cardboard containers were marked as containing "Boric Acid" and the third stained carboard container was marked as "Carborex 120 Waste."



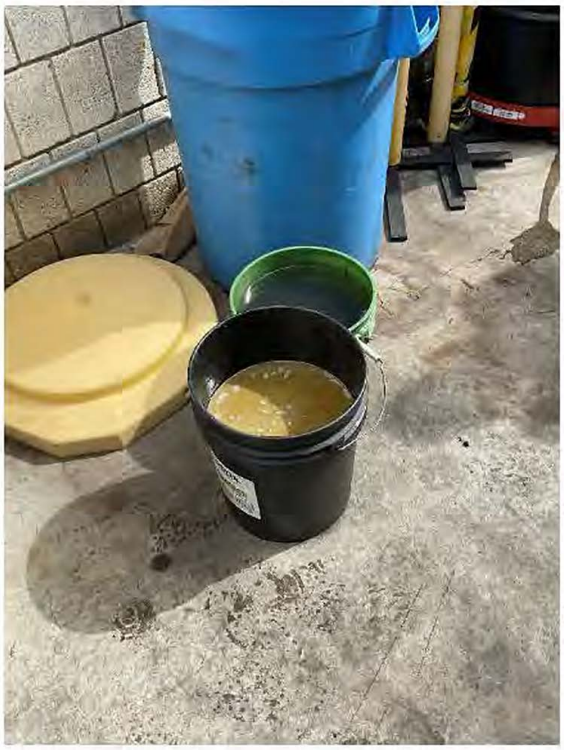
007	March 14, 2023	Williams International Co.

An open, unlabeled 55-gallon container accumulating an unknown liquid. Contents of container are shown in Photo 008.



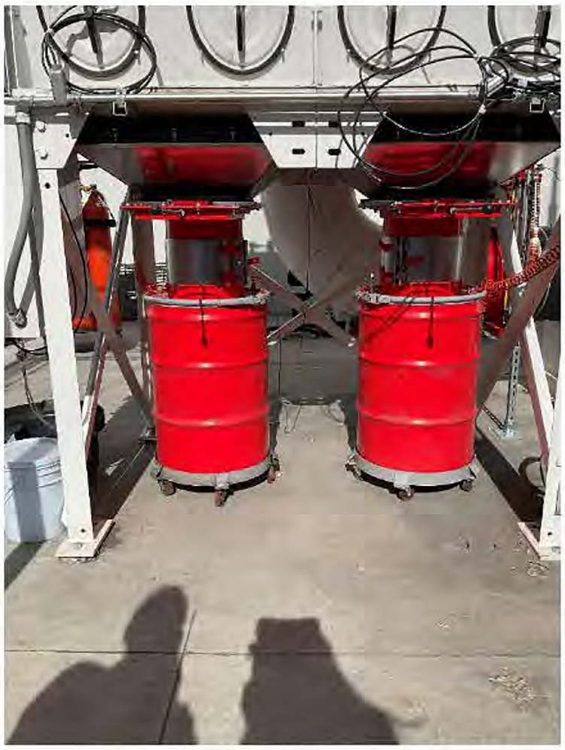
008	Date	Facility

The open container referenced in Photo 007, was exposed to the elements, and the liquid was not being managed as a valuable commodity.



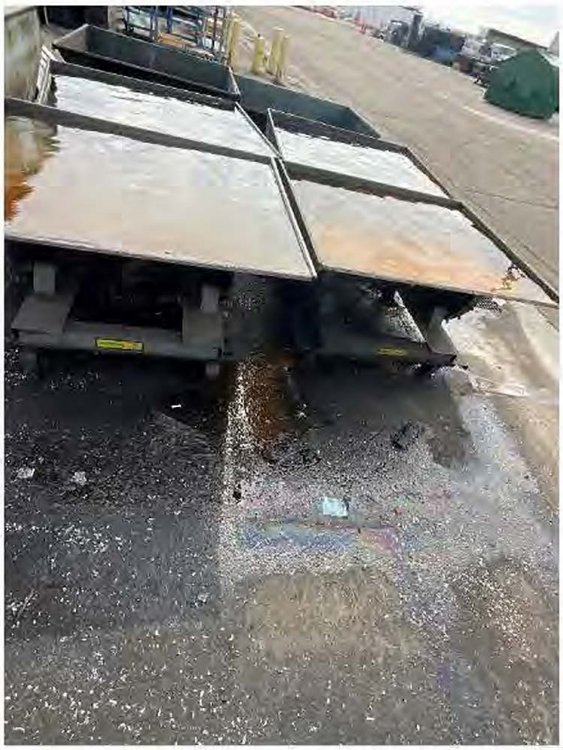
009 March 14, 2023 Williams International Co.

One open and unlabeled 5-gallon container accumulating an unknown liquid. Due to the exposure to the elements, the liquid was not being managed as a valuable commodity.



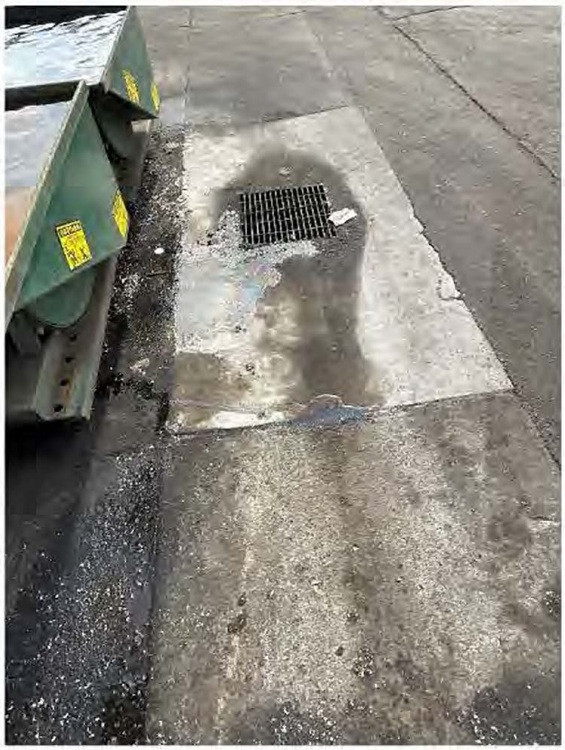
010 March 14, 2023 Williams International Co.

Two unlabeled 55-gallon drums of "plasma spray dust."



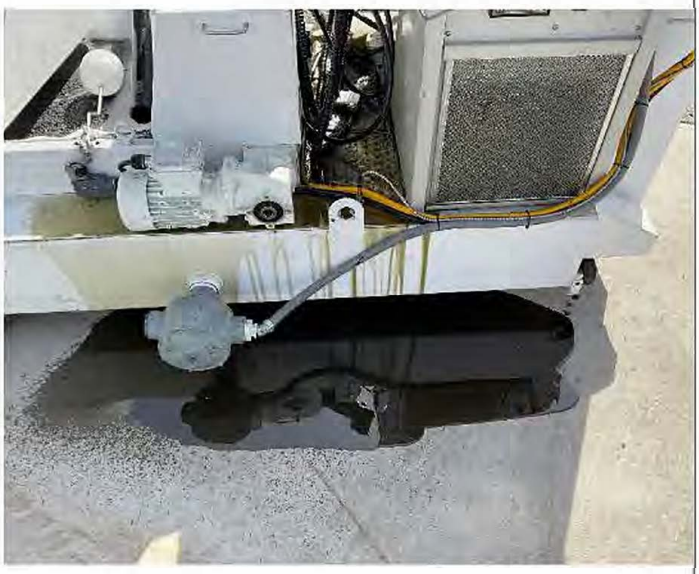
011 March 14, 2023 Williams International Co.

Four open "hoppers" full of rainwater, swarf, and used oil. Swarf and used oil were dripping out of the hopper onto the ground and into a storm drain.



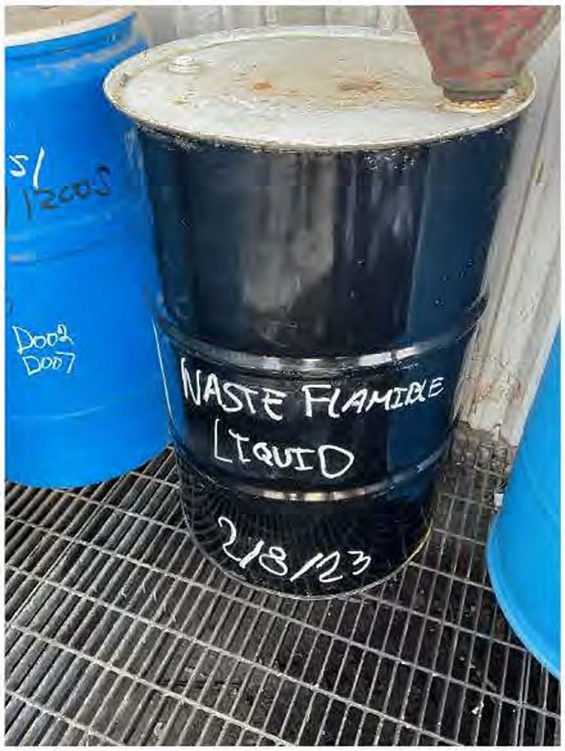
012 March 14, 2023 Williams International Co.

Used oil and rainwater spilling into a storm drain from the four full hoppers in Photo 011.



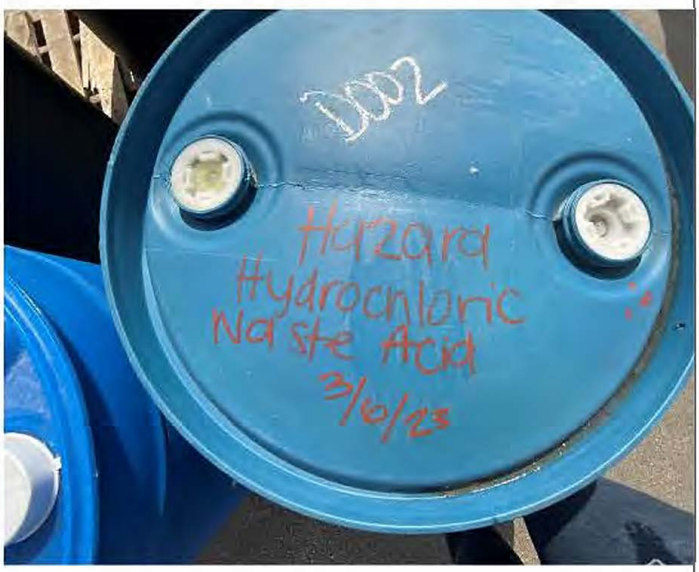
013	March 14, 2023	Williams International Co.

Used oil being released. The location is adjacent to the "plasma spray dust collection area."



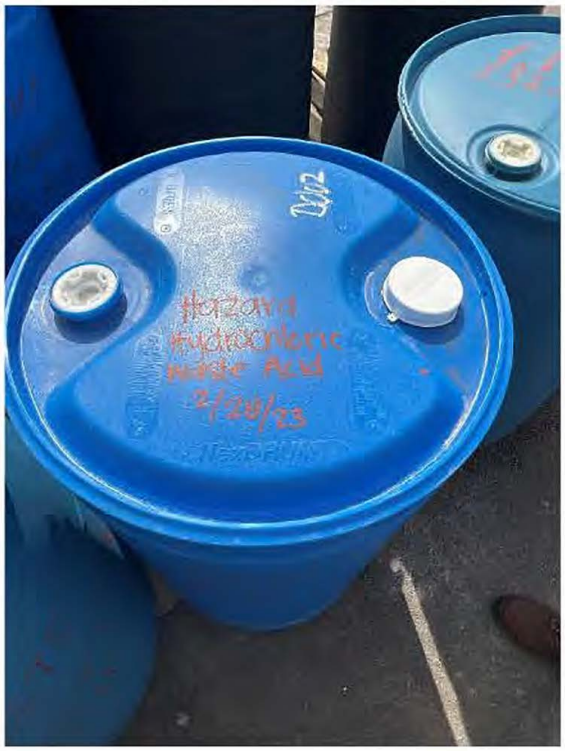
014	March 14, 2023	Williams International Co.

A 55-gallon drum not properly marked/labeled with the words "Hazardous Waste."



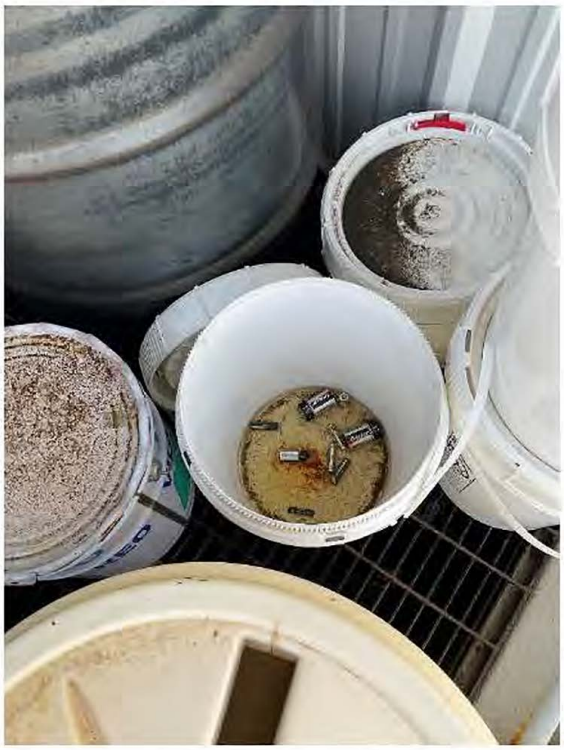
015	March 14, 2023	Williams International Co.

A 55-gallon drum not marked with the words "Hazardous Waste" in the "Blue Phoenix" CAA.



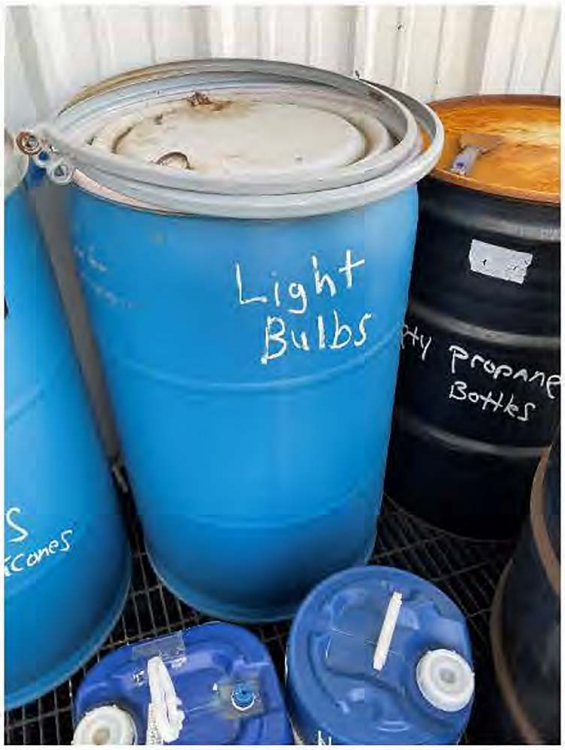
016	March 14, 2023	Williams International Co.

A 55-gallon drum not marked with the words "Hazardous Waste" in the "Blue Phoenix" CAA.



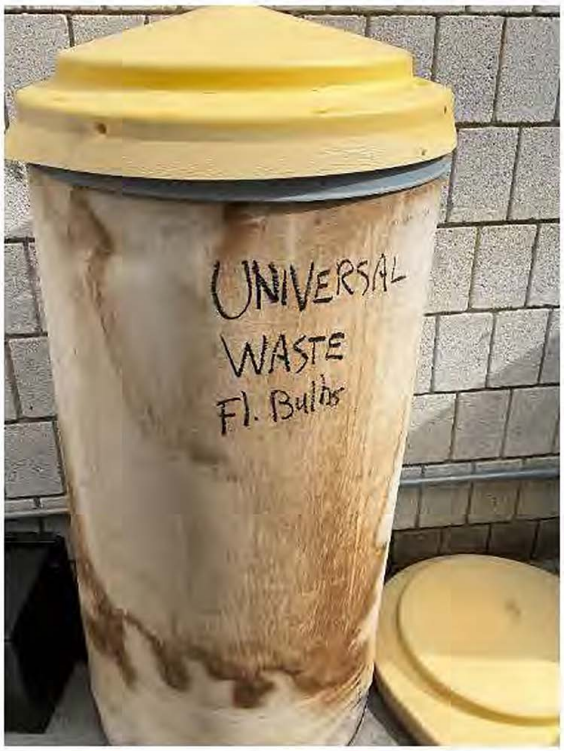
017 March 14, 2023 Williams International Co.

An open universal waste battery accumulation container with rainwater and debris present.



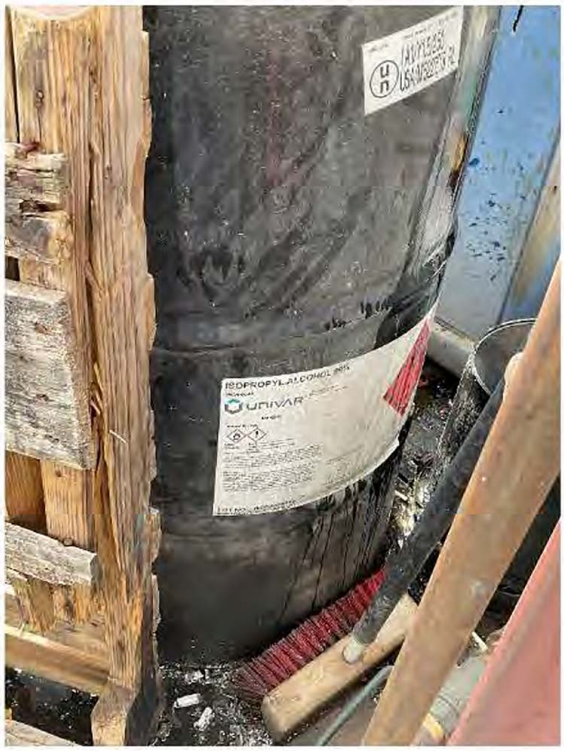
018 March 14, 2023 Williams International Co.

A 55-gallon drum containing broken fluorescent lamps not marked with the words "Universal Waste Lamps" and an accumulation start date,



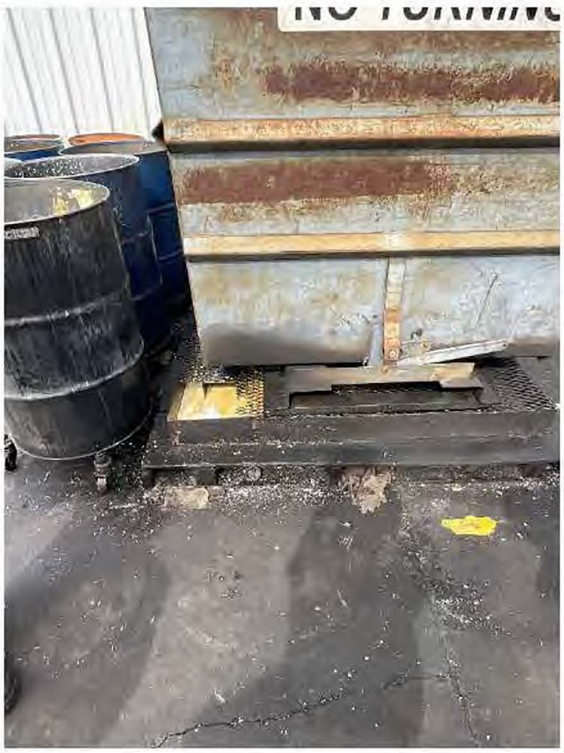
019 March 14, 2023 Williams International Co.

A wet, Universal Waste container accumulating fluorescent lamps that was not marked with an accumulation start date.



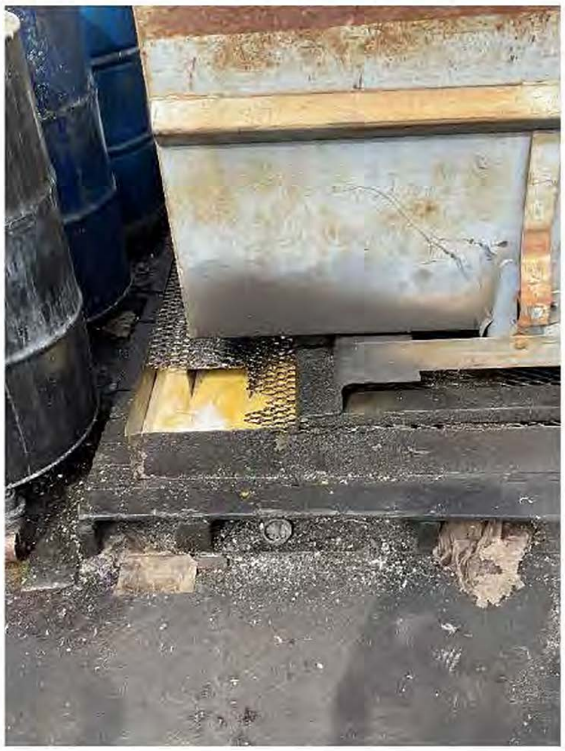
020 March 14, 2023 Williams International Co.

A 55-gallon drum of "isopropyl alcohol 99%" located near the "Coolant Shed" and additional waste storage marked with an indication of the hazard but not marked with the words "Hazardous Waste."



021 March 14, 2023 Williams International Co.

Containment area of Used Oil and a spill of used oil from the drum crusher located adjacent to the CAA and "Coolant Shed."



022 March 14, 2023 Williams International Co.

Closeup of Photo 021