



State of Utah

GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

Department of  
Environmental Quality

Alan Matheson  
Executive Director

DIVISION OF WASTE MANAGEMENT  
AND RADIATION CONTROL  
Scott T. Anderson  
Director

A regular meeting of the Waste Management and Radiation Control Board has been scheduled for February 8, 2018 at 1:30 p.m. at the Utah Department of Environmental Quality, Multi-Agency State Office Building, located at 195 North 1950 West (Conference Room #1015), SLC.  
(One or more Board members may participate telephonically.)

AGENDA

- I. Call to Order.
- II. **Approval of the Meeting Minutes for the January 11, 2018 Board Meeting..... Tab 1  
(Board Action Item)**
- III. **Underground Storage Tanks Update..... Tab 2**
- IV. Administrative Rules ..... Tab 3
  - A. **Approval of final adoption of the rule changes to R313-25-25, License Requirements for Land Disposal of Radioactive Waste – General Provisions, except for paragraph R313-25-51.5(3) and to file a Notice of Change in Proposed Rule to delete paragraph R313-25-51.5(3) and renumber the subsequent paragraph (Board Action Item).**
- V. Low-Level Radioactive Waste Section..... Tab 4
  - A. **Proposed Stipulation and Consent Order between the Board and EnergySolutions, LLC.  
(Board Action Item).**
- VI. Legislative Update.
- VII. Other Business.
  - A. Misc. Information Items.
  - B. Scheduling of next Board meeting.
- VIII. Adjourn.

In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Larene Wyss, Office of Human Resources at (801) 536-4281, TDD (801) 536-4284 or by email at "[lwyss@utah.gov](mailto:lwyss@utah.gov)".

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Waste Management and Radiation Control Board Meeting  
Utah Department of Environmental Quality  
195 North 1950 West (Board Conference Room #1015), SLC  
January 11, 2018  
1:30 p.m.

**Board Members Present:** Brett Mickelson (Chair), Dennis Riding (Vice-Chair), Richard Codell, Danielle Endres, Marc Franc, Jeremy Hawk, Alan Matheson, Steve McIff, Shawn Milne, Nathan Rich, Vern Rogers and Shane Whitney

**Staff Members Present:** Scott Anderson, Brent Everett, Thomas Ball, Ed Costomiris, Arlene Lovato, Rusty Lundberg, Kaci McNeil, Deborah Ng, Rick Page, Bret Randall, Elisa Smith, Don Verbica and Otis Willoughby

**Others Present:** Jessica Reiner

I. Call to Order.

Brett Mickelson (Chair) welcomed all in attendance and called the meeting to order at 1:30 p.m.

II. Approval of the Meeting Minutes for the November 9, 2017 Board Meeting (**Board Action Item**).

**It was moved by Shane Whitney and seconded by Shawn Milne and UNANIMOUSLY CARRIED to approve the November 9, 2017 Board Meeting minutes.**

III. Underground Storage Tanks Update.

Brent Everett, Director of the Division of Environmental Response and Remediation (DERR), informed the Board that the asset balance of the Petroleum Storage Tank (PST) Trust Fund at the end of November 2017 was \$15,059,729.00. The preliminary estimate for the cash balance of the PST Trust Fund for the end of December 2017 is \$14,493,396.00. The PST Trust Fund is managed on a cash balance basis and is watched closely to ensure sufficient coverage for covered releases.

Mr. Everett reported that due to significant changes to the Federal underground storage tank (UST) regulations in 2015, the U.S. Environmental Protection Agency (EPA) is requiring all states that have previously been granted state program approval (SPA) to reapply for approval by October 2018. The UST staff has been working over the last two years to put together the required documentation. The submission package has been completed and preliminarily reviewed by the EPA. The document is rather large and the EPA has requested hardcopy documents so the document has been sent to the printer and is expected to be submitted to the EPA for final review and approval later this month.

Mr. Everett reported that Representative Steve Eliason has sponsored House Bill 27, UST Act Amendments. The bill passed out of the Natural Resources, Agriculture, and Environmental Quality Appropriations Subcommittee as a committee bill on November 15, 2017. This bill reauthorizes the UST Act for a period of 10 years and modifies the amounts for which loans can be made out of the PST Trust Fund for UST system replacement.

IV. Administrative Rules.

- A. Approval to file Five-Year review notices for Solid Waste Rules R315-301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318 and 320 (**Board Action Item**).

Tom Ball, Planning and Technical Support Section Manager, reviewed the request for approval from the Board to file Five Year Review notices for Solid Waste Rules R315-301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318 and 320. If these rules are to continue, a Notice of Continuation (Five-Year Review) must be filed prior to the anniversary of the last five-year review.

The Utah Administrative Rulemaking Act (Utah Code Annotated (UCA) §63G-3-305) requires state agencies to review each of their administrative rules within five years of the rule's original effective date or the last five-year review. The purpose of the review is to provide agencies with an opportunity to assess whether the rules should be continued. In performing a five-year review, an agency may consider the need to amend or repeal rules that are archaic in form, are no longer used, are not based on existing statutory authority or are otherwise unnecessary.

The Solid and Hazardous Waste Act authorizes the Waste Management and Radiation Control Board to make rules (UCA §19-6-105 and §19-6-104). Because the Administrative Rulemaking Act's definition of "agency" includes each state board authorized or required by law to make rules, it is appropriate that the Board approve the five-year review of a rule. To retain a rule as part of the Utah Administrative Code, a "Five-Year Notice of Review and Statement of Continuation" must be filed with the Office of Administrative Rules, before the rule's five-year anniversary date. A filing form with the following information must be provided: (1) A concise explanation of the particular statutory provisions under which the rule is enacted and how these provisions authorize the rule; (2) A summary of written comments received during and since the last five-year review of the rule from interested persons supporting or opposing the rule; and, (3) A reasoned justification for continuation of the rule, including reasons why the agency disagrees with comments in opposition to the rule, if any. Completing the form provided by the Office of Administrative Rules and filing it before the five-year review date satisfies the provisions of the Administrative Rulemaking Act with respect to a five-year review.

The Division Director recommends that the Board approve filing the completed Five-Year Notice of Review and Statement of Continuation forms for Solid Waste Rules R315-301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318 and 320 with the Office of Administrative Rules.

**It was moved by Mark Franc and seconded by Steve McIff and UNANIMOUSLY CARRIED to approve to file Five-Year review notices for Solid Waste Rules R315-301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318 and 320 (Board Action Item).**

V. Used Oil Section.

- A. Approval to proceed with formal rulemaking and 30-day public comment period for proposed changes to R315-15, Standards for the Management of Used Oil Rules (**Board Action Item**).

Tom Ball reviewed the request for approval from the Board to proceed with formal rulemaking and 30-day public comment by filing with the Office of Administrative Rules and publishing in the Utah State Bulletin proposed changes to UAC R315-15, Standards for the Management of Used Oil Rules to fix an inadvertent wording change in the rules that causes a contradiction when a facility collecting used oil

has to be registered and to remove a requirement in the financial assurance rules for all financial documents to be signed in duplicate.

The Division was made aware of contradictory language in the used oil management rules by a constituent. Specifically, UAC R315-15-13.3(a) currently states that a person may operate a used oil aggregation point without a registration number if the aggregation point also accepts used oil from household do-it-yourselfers or other generators. UAC R315-15-13.3(b) then states if an aggregation point accepts used oil from household do-it-yourselfers it must be registered. It is the intent of the rules that all facilities that manage used oil from household do-it-yourselfers be registered. The Division was unable to determine why the contradiction exists. Previous versions of the rule do not have the contradiction and the Division was unable to find any documentation making the change. The proposed change to UAC R315-15-13.3 will remove the contradiction and return the rule to its original intent. Recently, it was discovered that facilities involved in the management of used oil have been submitting all financial assurance mechanisms signed in duplicate when only certain mechanisms actually need to be signed in duplicate, others in triplicate and some just single. Research into the issue revealed that UAC R315-15-17.1 requires all financial assurance mechanisms to be signed in duplicate. The proposed change to UAC R315-15-17.1 will remove the requirement from the rules and facilities managing used oil will follow the requirements of each mechanism regarding the number of signatures needed. Mr. Ball clarified that, at this time, all financial assurance documents are submitted as hard copies to the Division. The Division is looking into options for facilities to submit financial assurance documents electronically in the future.

The proposed changes to UAC R315-15 were included in the January 11, 2018 Board packet.

The Board is authorized under Subsection 19-6-704(1)(a) to establish by rules conditions and procedures for registration of used oil collection centers and used oil aggregation points and under Subsection 19-6-704(1)(b) to provide by rule that used oil aggregation points that do not accept do-it-yourselfer used oil are not required to be registered. The Board is authorized under Subsection 19-6-704(1) to make rules as necessary to administer the Used Oil Management Act.

**It was moved by Dennis Riding and seconded by Vern Rogers and UNANIMOUSLY CARRIED to approve to proceed with formal rulemaking and 30-day public comment period for proposed changes to R315-15, Standards for the Management of Used Oil Rules.**

VI. Low-Level Radioactive Waste Section.

A. Proposed Stipulation and Consent Order between the Board and EnergySolutions, LLC. (Information Item Only).

Otis Willoughby, Environmental Scientist, Low Level Radioactive Waste Section, reviewed the Stipulation and Consent Order (SCO) to resolve Notice of Violation No. 2017-1706012 issued to EnergySolutions on July 17, 2017 for a self-identified violation of Condition 5.a of Attachment II-10 of the state-issued Part B Hazardous Waste Permit.

On July 26, 2016, EnergySolutions notified the Director that for the previous two years, a synthetic polymer solution was not applied as a dust suppressant for exposed areas of waste, on a bi-weekly basis, during the required timeframes beginning on May 31st and ending on October 1st for each of those years. This resulted in 11 individual occurrences where application of dust suppressant was not applied. The violation has been corrected. The SCO includes a penalty of \$50,689.00.

19-6-104(1)(f) of the Utah Solid and Hazardous Waste Act requires the Board to review settlements negotiated by the Director in accordance with Subsection 19-6-107(3)(a) that require a civil penalty of \$25,000 or more.

Mr. Willoughby stated no documented release of exposed waste was detected in the areas EnergySolutions tested.

The notice for public comment was published in the Salt Lake Tribune, the Deseret News and the Tooele County Transcript Bulletin. The public comment period for this SCO began on December 27, 2017 and will end on January 29, 2018. This is an informational item before the Board. The Director will provide a recommendation at the next Board meeting.

## VII. Other Business.

### A. Misc. Information Items – Live Streaming of Board meetings.

Scott Anderson inquired if Board members had concerns if live streaming of Board meetings was implemented in the future. Other municipalities, city councils, etc. are now live streaming their meetings as a courtesy to their constituents and UDEQ is now looking into options to provide this service as well.

### B. Scheduling of next Board meeting.

The next Board meeting is scheduled for February 8, 2018 at 1:30 pm at the Utah Department of Environmental Quality.

### C. Legislative Update.

Scott Anderson provided an update on legislation that may be introduced during the 2018 Legislative session.

Representative Sandall is sponsoring a bill to modify some of the reimbursement provisions of the Waste Tire Recycling Act. Currently when you purchase tires, a fee of \$1.00 is assessed at the point of sale. The money goes into the Waste Tire Restricted Account and is used to help local jurisdictions clean up their tire piles that have accumulated at their landfills and other places. Currently, there is a formula for reimbursement where the Waste Tire Restricted Account will pay 60% of the cleanup costs and the local jurisdictions are required to pay 40% of the costs. For some of the smaller counties that don't have the economic resources that the large counties have, it has been a disincentive for them. So, this bill changes the formula for certain classes of counties to 100% reimbursement, eliminating the 60/40 formula. The larger counties would remain at the 60/40 formula. This is a good bill as it will utilize the monies as they were intended to and help those jurisdictions that may need additional resources to get their tire piles cleaned up.

Senator Iwamoto is drafting a bill to address the impact of plastic bags on the environment. This bill imposes a 10 cent fee for each single-use retail bags at the point of sale. A similar bill was introduced last year. The concern is the tremendous amount of litter that arises when plastic bags get wind-blown, etc. The Division is currently providing technical input on this bill. The language presented in last year's bill had an education component, and it is anticipated that same language will be presented in this bill.

Representative Parry is working on a bill regarding solid waste fees. Last year; HB115, sponsored by Representative Mike McKell, changed the way the solid waste fees are calculated. HB115 increased the number of facilities who will be subject to the fees and directed the agency to establish a fair and equitable fee to cover program costs. It moved the fee from a statutory provision to the fee schedule that the DEQ puts together every year as part of its budget request. A fee of \$500 minimum or 21 cents a ton was proposed for treatment and disposal of waste and \$500 minimum or 11 cents a ton for transfer facilities. These fees are currently in the Department's budget request. There is a lot of interest regarding these fees and numerous individuals want to re-visit this matter. The concern for the Division is that adequate resources are available to run the program.

A bill regarding fireworks amendments, SB67, sponsored by Senator Weiler requires the Utah Fire Prevention Board to create a uniform statewide policy regarding a government entity's seizure, storage, and disposal of certain explosives, including Class A and Class B explosives. Class A and Class B wastes are reactive hazardous waste under the current definition. The Division wants to make sure that the Utah Fire Prevention Board considers the Solid and Hazardous Waste Rules as they develop criteria for seizure, storage and disposal of these materials.

D. Media Story regarding waste tires being illegally dumped.

Board members inquired about a media story regarding waste tires being illegally dumped near Lee Kay Pond in Salt Lake City. Mr. Anderson stated that the Division is aware of the situation and briefly discussed the matter as these tires are not only an eyesore, but may be impacting the wildlife (birds) surrounding the area. Mr. Anderson stated it is very difficult to find who is actually responsible for the illegally dumping of the tires as the illegal dumping may be caused by people trying to avoid paying the price for tire disposal at the nearby landfill. The Division has been in contact with representatives from the Salt Lake County Health Department and is currently working with them to handle this matter.

VIII. Adjourn.

The meeting adjourned at 1:57 pm.

**UST STATISTICAL SUMMARY**  
**January 1, 2017 -- December 31, 2017**

<b>PROGRAM</b>													
	<b>January</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>August</b>	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>	<b>(+/-) OR Total</b>
<b>Regulated Tanks</b>	4,063	4,060	4,060	4,058	4,043	4,046	4,054	4,059	4,063	4,062	4,050	4,054	<b>(9)</b>
<b>Tanks with Certificate of Compliance</b>	3,968	3,971	3,974	3,982	3,972	3,965	3,964	3,959	3,953	3,954	3,957	3,969	<b>1</b>
<b>Tanks without COC</b>	95	89	86	76	71	81	90	100	110	108	93	85	<b>(10)</b>
<b>Cumulative Facilities with Registered A Operators</b>	1,318	1,315	1,316	1,313	1,307	1,307	1,305	1,301	1,300	1,307	1,305	1,306	<b>97.61%</b>
<b>Cumulative Facilities with Registered B Operators</b>	1,319	1,317	1,319	1,317	1,311	1,310	1,308	1,316	1,302	1,307	1,305	1,306	<b>97.61%</b>
<b>New LUST Sites</b>	6	8	8	8	7	11	7	7	3	6	13	8	<b>92</b>
<b>Closed LUST Sites</b>	4	5	13	3	5	13	8	10	4	3	18	13	<b>99</b>
<b>Cumulative Closed LUST Sites</b>	4978	4983	4992	4996	5004	5016	5025	5031	5036	5045	5060	5072	<b>94</b>
<b>FINANCIAL</b>													
	<b>January</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>August</b>	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>	<b>(+/-)</b>
<b>Tanks on PST Fund</b>	2,755	2,758	2,769	2,761	2,745	2,735	2,733	2,728	2,722	2,718	2,708	2,707	<b>(48)</b>
<b>PST Claims (Cumulative)</b>	661	663	666	669	670	672	670	670	671	674	674	676	<b>15</b>
<b>Equity Balance</b>	-\$8,286,855	-\$8,286,855	-\$8,286,855	-\$8,286,855	-\$8,908,361	-\$8,573,569	-\$8,364,249	-\$8,817,188	-\$9,466,602	-\$12,442,135	-\$13,385,166	-\$13,951,499	<b>(\$5,664,644)</b>
<b>Cash Balance</b>	\$15,608,438	\$15,660,762	\$15,054,100	\$15,311,622	\$15,900,293	\$16,235,085	\$16,444,405	\$15,991,466	\$15,342,052	\$16,002,761	\$15,059,729	\$14,493,396	<b>(\$1,115,042)</b>
<b>Loans</b>	0	0	0	0	0	0	1	0	0	0	0	0	<b>0</b>
<b>Cumulative Loans</b>	111	111	111	111	111	111	112	112	112	112	112	112	<b>1</b>
<b>Cumulative Amount</b>	\$4,069,774	\$4,069,774	\$4,069,774	\$4,069,774	\$4,069,774	\$4,069,774	\$4,079,887	\$4,079,887	\$4,079,887	\$4,079,887	\$4,079,887	\$4,079,887	<b>\$10,113</b>
<b>Defaults/Amount</b>	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
	<b>January</b>	<b>February</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>August</b>	<b>September</b>	<b>October</b>	<b>November</b>	<b>December</b>	<b>TOTAL</b>
<b>Speed Memos</b>	34	10	41	44	55	45	42	20	34	54	33	18	<b>430</b>
<b>Compliance Letters</b>	2	1	5	3	3	3	6	2	2	1	8	6	<b>42</b>
<b>Notice of Intent to Revoke</b>	0	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>
<b>Orders</b>	0	0	1	0	1	0	0	0	0	1	2	0	<b>5</b>

# WASTE MANAGEMENT AND RADIATION CONTROL BOARD

## Executive Summary

### Administrative Rules

#### Adoption of Changes and Approval of Notice of Change in Proposed Rule UAC R313-25, License Requirements for Land Disposal of Radioactive Waste February 8, 2018

<b>What is the issue before the Board?</b>	<p>Approval from the Board to:</p> <ol style="list-style-type: none"><li>(1) adopt the proposed rule changes to R313-25-25, License Requirements for Land Disposal of Radioactive Waste – General Provisions, as published in the <i>Utah State Bulletin</i> on November 1, 2017, except for paragraph R313-25-51.5(3);</li><li>(2) approve filing with the Office of Administrative Rules a Notice of Change in Proposed Rule to delete paragraph R313-25-51.5(3) and renumber the subsequent paragraph; and</li><li>(3) set an effective date for the above rule changes.</li></ol>
<b>What is the historical background or context for this issue?</b>	<p>During the 2015 General Session, the Legislature passed S.B. 173 that required the Board to perform rulemaking to make changes to portions of UAC R313-25 regarding financial assurance requirements for the closure and post closure care of a low-level radioactive waste disposal facility. However, rulemaking was deferred because the Nuclear Regulatory Commission (NRC) determined that certain provisions of S.B. 173 were incompatible with federal law. These incompatibility issues were not fully resolved until the 2017 General Session of the Legislature, when additional changes were made to the statute with the passage of S.B. 79, correcting the incompatible provisions. S.B. 79 also modified certain facility definitions, triggering the need for conforming amendments in R313-25.</p> <p>The Board, at the October 12, 2017 meeting, approved proceeding with formal rulemaking and public comment by filing with the Office of Administrative Rules and publishing in the <i>Utah State Bulletin</i> proposed changes to UAC R313-25.</p> <p>The proposed changes were published in the November 1, 2017 issue of the <i>Bulletin</i>. The public comment period began on November 1, 2017 and concluded on December 1, 2017. One commenter (<i>EnergySolutions</i>) submitted comments during the public comment period. In a letter dated January 10, 2018, the Director responded to the comments.</p> <p>Based on the comments received, an additional change to R313-25 is being proposed in order to delete paragraph R313-25-31.5(3) and renumber the subsequent paragraph.</p>

	<p>Utah administrative rulemaking procedures require a Notice of Change in Proposed Rule be prepared and filed with the Office of Administrative Rules for subsequent publication in the <i>Utah State Bulletin</i>. When published in the <i>Bulletin</i>, only the additional changes (i.e., paragraph deletion and paragraph renumbering) to R313-25 will be marked and the financial impact information will only address the additional changes. All other rule changes previously published and not being further changed are considered to be final when published as part of the Notice of Change in Proposed Rule.</p> <p>The following documents follow this Executive Summary:</p> <ul style="list-style-type: none"> <li>• Pertinent pages of the November 1, 2017 issue of the <i>Utah State Bulletin</i> with the proposed rule changes to R313-25</li> <li>• Comments submitted by EnergySolutions</li> <li>• Agency response to comments</li> <li>• Notice of Change of Proposed Rule form for R313-25</li> <li>• R313-25 with additional proposed changes marked</li> </ul>
<p><b>What is the governing statutory or regulatory citation?</b></p>	<p>Utah Code , §§ 19-3-104(4) and 19-6-104</p> <p>The proposed rule changes also meet existing DEQ and state rulemaking requirements.</p>
<p><b>Is Board action required?</b></p>	<p>Yes. Board approval is necessary.</p>
<p><b>What is the Division Director’s recommendation?</b></p>	<p>The Director recommends the Board:</p> <ol style="list-style-type: none"> <li>(1) adopt the rule changes to R313-25-25, License Requirements for Land Disposal of Radioactive Waste – General Provisions, as published in the <i>Utah State Bulletin</i> on November 1, 2017, except for paragraph R313-25-51.5(3);</li> <li>(2) approve filing with the Office of Administrative Rules a Notice of Change in Proposed Rule to delete paragraph R313-25-51.5(3) and renumber the subsequent paragraph; and</li> <li>(3) set an effective date of April 16, 2018 for the above rule changes based on being published in the March 1, 2018 issue of the <i>Bulletin</i>.</li> </ol>
<p><b>Where can more information be obtained?</b></p>	<p>Please contact Don Verbica at (801) 536-0206 or <a href="mailto:dverbica@utah.gov">dverbica@utah.gov</a>, Rusty Lundberg at (801) 536-4257 or <a href="mailto:rlundberg@utah.gov">rlundberg@utah.gov</a> or Bret Randall, Assistant Attorney General at (801) 536-0284 or <a href="mailto:bfrandall@agutah.gov">bfrandall@agutah.gov</a>.</p>

DSHW-2018-000899

Attachments: DSW-2018-000903; DSHW-2018-000904; DSHW-2017-009081; DSHW-2018-000906; DSHW-2018-000907

# UTAH STATE BULLETIN

OFFICIAL NOTICES OF UTAH STATE GOVERNMENT  
Filed October 03, 2017, 12:00 a.m. through October 16, 2017, 11:59 p.m.

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Nancy L. Lancaster, Managing Editor

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Inquiries concerning the substance or applicability of an administrative rule that appears in the *Bulletin* should be addressed to the contact person for the rule. Questions about the *Bulletin* or the rulemaking process may be addressed to: Office of Administrative Rules, PO Box 141007, Salt Lake City, Utah 84114-1007, telephone 801-538-3003. Additional rulemaking information and electronic versions of all administrative rule publications are available at <https://rules.utah.gov/>.

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

Office of Administrative Rules, Salt Lake City 84114

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Utah state bulletin.

Semimonthly.

1. Delegated legislation--Utah--Periodicals. 2. Administrative procedure--Utah--Periodicals.

I. Utah. Office of Administrative Rules.

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**Environmental Quality, Waste  
Management and Radiation Control,  
Radiation  
R313-25  
License Requirements for Land  
Disposal of Radioactive Waste –  
General Provisions**

**NOTICE OF PROPOSED RULE  
(Amendment)**

DAR FILE NO.: 42204  
FILED: 10/12/2017

**RULE ANALYSIS**

**PURPOSE OF THE RULE OR REASON FOR THE CHANGE:** During the 2015 General Session, the Legislature passed S.B. 173 that affected portions of Rule R313-25. However, rulemaking was deferred because the Nuclear Regulatory Commission (NRC) determined that certain provisions of S.B. 173 were incompatible with federal law. These incompatibility issues were not finally resolved until 2017. During the 2017 General Session, the Legislature passed S.B. 79, Waste Management Amendments, which requires the Waste Management and Radiation Control Board to: i) modify financial assurance requirements for the closure and post-closure care of a radioactive waste disposal facility; and ii) to make conforming and clarifying amendments as to "facility" definitions adopted in S.B. 79.

**SUMMARY OF THE RULE OR CHANGE:** During the 2015 General Session, the Legislature passed S.B. 173 that affected portions of Rule R313-25. However, rulemaking was deferred because the Nuclear Regulatory Commission (NRC) determined that certain provisions of S.B. 173 were incompatible with federal law. These incompatibility issues were not finally resolved until 2017. During the 2017 General Session, the Legislature passed and the governor signed S.B. 79 which requires the Board to promulgate rules regarding financial assurance requirements for the closure and post closure care of a low-level radioactive waste disposal facility. S.B. 79 also modified certain facility definitions, triggering the need for conforming amendments in the rules. The current changes reflect both S.B. 173 and S.B. 79. Although financial assurance requirements have existed in Rule R313-25 for several years, the proposed changes are being made in order to meet the prescribed rulemaking direction found in S.B. 79, and to provide the tools and flexibility the Director believes are necessary to implement S.B. 79. More specifically, S.B. 79 allows radioactive waste licensees the opportunity to rely on either (i) RS Means or (ii) a "competitive site-specific estimate" as the basis for calculating financial surety. While RS Means represents a national average of heavy civil construction costs, S.B. 79 did not provide a definition for "competitive site-specific estimate". Based on the legislative history of S.B. 79, it was apparent to the Director that this undefined term referred to local market costs. Based on the Utah Supreme Court case, *Associated General Contractors v. Board of Oil, Gas and Mining*, 2001 UT 112, 38 P.3d 291, the Director in this rulemaking proposes to: i) define this term; ii) provide the Division with access to local market expertise from heavy civil contractors or cost estimators who are familiar with local market construction costs in order to review and validate the information submitted by a licensee; and iii) provide that the licensee fund such review costs. The proposed changes to Section R313-25-31 incorporate the mandatory new rule text from S.B. 79. In addition a new section, R313-25-31.5, is being added to include the changes summarized above.

**STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE:** Section 19-3-104 and Subsection 19-6-104(1)

**ANTICIPATED COST OR SAVINGS TO:**

- ◆ **THE STATE BUDGET:** The proposed rule change allows a radioactive disposal facility applicant or licensee two options in providing a financial assurance cost estimate to the Director for his review. The Director's review of and action on the cost estimate will be covered by the existing budget and allocation of staff resources. If the applicant or licensee elects to submit a competitive site-specific cost estimate and the Director chooses to engage the services of a contractor or cost estimator to assist the Director in his review, then the applicant or licensee is required to reimburse the agency for the cost of the contractor's and/or the cost estimator's review. Therefore, the proposed rule change will be cost neutral to the state's budget.
- ◆ **LOCAL GOVERNMENTS:** No local governments own, operate, or are licensed to operate a radioactive waste

disposal facility; therefore there is no cost or savings impact to local governments.

♦ **SMALL BUSINESSES:** The existing radioactive waste disposal facility is not considered a small business and no small businesses in Utah own, operate, or are licensed to operate a radioactive waste disposal facility; therefore there is no cost or savings impact to small businesses.

♦ **PERSONS OTHER THAN SMALL BUSINESSES, BUSINESSES, OR LOCAL GOVERNMENTAL ENTITIES:** There is only one facility in Utah that is currently affected by the proposed rule changes. S.B. 79 creates an optional way that a licensee may establish the estimated closure and post-closure costs. If the licensee chooses RS Means as the basis, there is no added cost compared to existing requirements. If the licensee chooses to submit a competitive site-specific estimate, the cost to a licensee to prepare such cost estimate may include the hiring an outside contractor. In addition, the licensee will be required to provide funding if the Director seeks outside assistance from a consultant who is familiar with local market costs to help evaluate the licensee's submission. Such contractor and consulting costs will be based on the scope of the development of the estimate and the Director's review. Whether these additional costs are incurred is completely within the licensee's discretion. Because S.B. 79 and the associated proposed rule changes allow a facility the option to prepare a cost estimate using RS Means data rather than developing a competitive site-specific estimate through an outside contractor, the use of RS Means compared to the competitive site-specific estimate will result in an unspecified cost savings to the licensee. The proposed rule change could decrease the estimated cost of closing the facility, by an unspecified amount, by allowing the facility to separate or combine units and use whichever estimate has the lowest closure and post-closure care costs. The proposed rule change also allows the facility to reduce closure costs by closing the unit that is not filled to capacity as a smaller unit.

**COMPLIANCE COSTS FOR AFFECTED PERSONS:** Existing law places the burden on the licensee to demonstrate that its financial surety is sufficient at all times to cover the costs of a third party contractor to complete the required closure and post-closure activities in the event the licensee is unable or unwilling to perform closure and post-closure activities. This serves to protect Utah taxpayers from paying for these activities. S.B. 173, S.B. 79, and the proposed rule changes do not alter the underlying compliance requirement; however, these changes do provide an alternate way in lieu of RS Means for the licensee to demonstrate compliance. The licensee's potential compliance costs will be similar to those described above.

**COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES:** There is only one facility in Utah that is currently affected by the proposed rule changes. If the licensee chooses RS Means as the basis, there is no added cost compared to the existing requirements. If the licensee chooses to prepare and submit a competitive site-specific estimate, there are

undetermined costs due to the variability in the scope of the development of the estimate and the Director's review. It is important that the Director have access to the expertise of an outside estimator familiar with local market costs to assist in the review and evaluation of the competitive site-specific estimate. The proposed rule changes establish that the cost of this assistance should be borne by the licensee.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:

ENVIRONMENTAL QUALITY  
WASTE MANAGEMENT AND RADIATION  
CONTROL, RADIATION  
SECOND FLOOR  
195 N 1950 W  
SALT LAKE CITY, UT 84116-4880  
or at the Office of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

- ♦ Rusty Lundberg by phone at 801-536-4257, by FAX at 801-536-0222, or by Internet E-mail at [rlundberg@utah.gov](mailto:rlundberg@utah.gov)
- ♦ Thomas Ball by phone at 801-536-0251, or by Internet E-mail at [tball@utah.gov](mailto:tball@utah.gov)

INTERESTED PERSONS MAY PRESENT THEIR VIEWS ON THIS RULE BY SUBMITTING WRITTEN COMMENTS NO LATER THAN AT 5:00 PM ON 12/01/2017

THIS RULE MAY BECOME EFFECTIVE ON: 01/12/2018

AUTHORIZED BY: Scott Anderson, Director

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**R313. Environmental Quality, Waste Management and Radiation Control, Radiation.**

**R313-25. License Requirements for Land Disposal of Radioactive Waste - General Provisions.**

**R313-25-1. Purpose and Authority.**

(1) The purpose of this rule is to prescribe the requirements for the issuance of licenses for the land disposal of wastes received from other persons.

(2) The rules set forth herein are adopted pursuant to the provisions of Subsections 19-3-104(4), 19-3-104(7), 19-3-104(10), and 19-3-104(11).

(3) The requirements of Rule R313-25 are in addition to, and not in substitution for, other applicable requirements of these rules.

**R313-25-2. Definitions.**

As used in Rule R313-25, the following definitions apply:

"Active maintenance" means significant activity needed during the period of institutional control to maintain a reasonable assurance that the performance objectives in Sections R313-25-20 and R313-25-21 are met. Active maintenance may include the pumping and treatment of water from a disposal unit, the replacement of a disposal unit cover, or other episodic or continuous measures. Active maintenance does not include custodial activities like repair of fencing, repair or replacement of monitoring equipment, revegetation, minor additions to soil cover, minor repair of disposal unit covers, and general disposal site upkeep.

"Approval application" means an application by a radioactive waste facility regulated under Title 19, Chapter 3 or Title 19, Chapter 5, for a permit, permit modification, license, license amendment, or other authorization.

"Buffer zone" means a portion of the disposal site that is controlled by the licensee and that lies under the disposal units and between the disposal units and the boundary of the site.

"Competitive site-specific estimate" means a market-based cost estimate identifying and calculating the reasonable closure costs of a land disposal facility, including the cost of each activity in the closure, post-closure and institutional care of such facility, and market-based overhead(s) provided in sufficient detail to allow the Director to review and approve the same.

"Custodial agency" means an agency of the government designated to act on behalf of the government owner of the disposal site.

"Day" for purposes of this Rule means calendar days.

"Disposal" means the isolation of wastes from the biosphere by placing them in a land disposal facility.

"Disposal site" means that portion of a land disposal facility which is used for disposal of waste. It consists of disposal units and a buffer zone.

"Disposal unit" means a discrete portion of the disposal site into which waste is placed for disposal. For near-surface disposal, the disposal unit may be a trench.

"Engineered barrier" means a man-made structure or device intended to improve the land disposal facility's performance under Rule R313-25.

"Groundwater permit" means a groundwater quality discharge permit issued under the authority of Title 19, Chapter 5 and Rule R317-6.

"Hydrogeologic unit" means a soil or rock unit or zone that has a distinct influence on the storage or movement of ground water.

"Inadvertent intruder" means a person who may enter the disposal site after closure and engage in activities unrelated to post closure management, such as agriculture, dwelling construction, or other pursuits which could, by disturbing the site, expose individuals to radiation.

"Intruder barrier" means a sufficient depth of cover over the waste that inhibits contact with waste and helps to ensure that radiation exposures to an inadvertent intruder will meet the performance objectives set forth in Rule R313-25, or engineered structures that provide equivalent protection to the inadvertent intruder.

"Land disposal facility" means the land, buildings and structures, and equipment which are intended to be used for the disposal of radioactive waste. Land disposal facility also includes any land, buildings and structures, and equipment adjacent to such land disposal facility used for the receipt, storage, treatment, or processing of radioactive waste.

"Monitoring" means observing and making measurements to provide data to evaluate the performance and characteristics of the disposal site.

"Near-surface disposal facility" means a land disposal facility in which waste is disposed of within approximately the upper 30 meters of the earth's surface.

"Site closure and stabilization" means those actions that are taken upon completion of operations that prepare the disposal site for custodial care, and that assure that the disposal site will remain stable and will not need ongoing active maintenance.

"Stability" means structural stability.

"Surveillance" means monitoring and observation of the disposal site to detect needs for maintenance or custodial care, to observe evidence of intrusion, and to ascertain compliance with other license and regulatory requirements.

"Tolling period," for purposes of this Rule, means a period during which days are not counted toward the deadlines specified in Subsections R313-25-6(3)(c), (4)(c)(i), (5)(b)(i), and (6)(b)(i).

"Treatment" means the stabilization or the reduction in volume of waste by a chemical or a physical process.

"Unlicensed facility" means a structure, road, or property adjacent to, but outside of, a licensed or permitted area and that is not used for waste disposal or management.

"Waste" means those low-level radioactive wastes containing radioactive material that are acceptable for disposal in a land disposal facility. For the purposes of this definition, low-level radioactive waste means radioactive waste not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct material as defined in (b), (c), and (d) of the definition for byproduct material found in Section R313-12-3.

### **R313-25-3. Pre-licensing Plan Approval Criteria for Siting of Commercial Radioactive Waste Disposal Facilities.**

(1) Persons proposing to construct or operate commercial radioactive waste disposal facilities, including waste incinerators, shall obtain a plan approval from the Director before applying for a license. Plans shall meet the siting criteria and plan approval requirements of Section R313-25-3.

(2) The siting criteria and plan approval requirements in Section R313-25-3 apply to prelicensing plan approval applications.

(3) Treatment and disposal facilities, including commercial radioactive waste incinerators, shall not be located:

(a) within or underlain by:

(i) national, state, and county parks, monuments, and recreation areas; designated wilderness and wilderness study areas; wild and scenic river areas;

(ii) ecologically and scientifically significant natural areas, including wildlife management areas and habitats for listed or proposed endangered species as designated by federal law;

(iii) 100 year floodplains;

(iv) areas 200 feet distant from Holocene faults;

(v) underground mines, salt domes and salt beds;

(vi) dam failure flood areas;

(vii) areas subject to landslide, mud flow, or other earth movement, unless adverse impacts can be mitigated;

(viii) farmlands classified or evaluated as "prime", "unique", or of "statewide importance" by the U.S. Department of Agricultural Soil Conservation Service under the Prime Farmland Protection Act;

(ix) areas five miles distant from existing permanent dwellings, residential areas, and other habitable structures, including schools, churches, and historic structures;

(x) areas five miles distant from surface waters including intermittent streams, perennial streams, rivers, lakes, reservoirs, and wetlands;

(xi) areas 1000 feet distant from archeological sites to which adverse impacts cannot reasonably be mitigated;

(xii) recharge zones of aquifers containing ground water which has a total dissolved solids content of less than 10,000 mg/l; or

(xiii) drinking water source protection areas designated by the Utah Drinking Water Board;

(b) in areas:

(i) above or underlain by aquifers containing ground water which has a total dissolved solids content of less than 500 mg/l and which aquifers do not exceed state ground water standards for pollutants;

(ii) above or underlain by aquifers containing ground water which has a total dissolved solids content between 3000 and 10,000 mg/l when the distance from the surface to the ground water is less than 100 ft.;

(iii) areas of extensive withdrawal of water, mineral or energy resources.

(iv) above or underlain by weak and unstable soils, including soils that lose their ability to support foundations as a result of hydrocompaction, expansion, or shrinkage;

(v) above or underlain by karst terrains.

(4) Commercial radioactive waste disposal facilities may not be located within a distance to existing drinking water wells and watersheds for public water supplies of five years ground water travel time plus 1000 feet.

(5) The plan approval siting application shall include hydraulic conductivity and other information necessary to estimate adequately the ground water travel distance.

(6) The plan approval siting application shall include the results of studies adequate to identify the presence of ground water aquifers in the area of the proposed site and to assess the quality of the ground water of all aquifers identified in the area of the proposed site.

(7) Emergency response and safety.

(a) The plan approval siting application shall demonstrate the availability and adequacy of services for on-site emergencies, including medical and fire response. The application shall provide written evidence that the applicant has coordinated on-site emergency response plans with the local emergency planning committee (LEPC).

(b) The plan approval siting application shall include a comprehensive plan for responding to emergencies at the site.

(c) The plan approval siting application shall show proposed routes for transportation of radioactive wastes within the state. The plan approval siting application shall address the transportation means and routes available to evacuate the population at risk in the event of on-site accidents, including spills and fires.

(8) The plan approval siting application shall provide evidence that if the proposed disposal site is on land not owned by state or federal government, that arrangements have been made for assumption of ownership in fee by a state or federal agency.

(9) Siting Authority. The Director recognizes that Titles 10 and 17 of the Utah Code give cities and counties authority for local use planning and zoning. Nothing in Section R313-25-3 precludes cities and counties from establishing additional requirements as provided by applicable state and federal law.

#### **R313-25-4. License Required.**

(1) Persons shall not receive, possess, store, treat, or dispose of waste at a land disposal facility unless authorized by a license issued by the Director pursuant to the Utah Radiation Control Act and Rules R313-25 and R313-22.

(2) Persons shall file an application with the Director pursuant to Section R313-22-32 and obtain a license as provided in Rule R313-25 before commencement of construction of a land

disposal facility. Failure to comply with this requirement may be grounds for denial of a license and other penalties established by law and rules.

#### **R313-25-5. Content of Application.**

In addition to the requirements set forth in Section R313-22-33, an application to receive from others, possess, and dispose of wastes shall consist of general information, specific technical information, institutional information, and financial information as set forth in Sections R313-25-7 through R313-25-11.

#### **R313-25-6. Director Review of Application.**

(1) The Director shall review each approval application to determine whether it complies with applicable statutory and regulatory requirements. Approval applications will be categorized as Category 1, 2, 3 and 4 applications, as provided in Subsections R313-25-6(2) through (5).

(2) Category 1 applications.

(a) A Category 1 application is an application that:

- (i) is administrative in nature;
- (ii) requires limited scrutiny by the Director; and
- (iii) does not require public comment.

(b) Examples of a Category 1 application include an application to:

- (i) correct typographical errors;
- (ii) Change the name, address, or phone number of persons or agencies identified in the license or permit;
- (iii) change the procedures or location for maintaining records; or

(iv) extend the date for compliance with a permit or license requirement by no more than 120 days.

(c) The Director shall review and approve or deny a Category 1 application within 30 days after the day on which the Director receives the application.

(3) Category 2 applications:

(a) A Category 2 application is one that is not a Category 1, 3 or 4 application.

(b) Examples of a Category 2 application include:

- (i) Increase in process, storage, or disposal capacity
- (ii) Change engineering design, construction, or process controls;

(iii) Approve a proposed corrective action plan; or

(iv) Transfer direct control of a license or groundwater permit.

(c)(i) The Director shall review and approve or deny a Category 2 application within 180 days after the day on which the Director receives the application.

(ii) The period described in Subsection R313-25-6(3)(c)(i) shall be tolled as provided in Subsection R313-25-6(7).

(4) Category 3 applications.

(a) Category 3 application is an application for:

- (i) a radioactive waste license renewal;
- (ii) a groundwater permit renewal;
- (iii) an amendment to an existing radioactive waste license or groundwater permit to allow a new disposal cell;

(iv) an amendment to an existing radioactive waste license or groundwater permit that would allow the facility to eliminate groundwater monitoring; or

(v) approval of a radioactive waste disposal facility closure plan.

(b)(i) The Director shall review and approve or deny a Category 3 application within 365 days after the day on which the Director receives the application.

(ii) The period described in Subsection R313-25-6(4)(b)(i) shall be tolled as provided in Subsection R313-25-6(7).

(5) Category 4 applications.

(a) A Category 4 application is an application for:

(i) a new radioactive waste license; or

(ii) a new groundwater permit.

(b)(i) The Director shall review and approve or deny a Category 4 application within 540 days after the day on which the Director receives the application.

(ii) The period described in Subsection R313-25-6(5)(b)(i) shall be tolled as provided in Subsection R313-25-6(7).

(6)(a) Within 60 days after the day on which the Director receives a Category 2, 3 or 4 approval application, the Director shall determine whether the application is complete and contains all the information necessary to process it for approval and make a finding by issuance of a written:

(i) notice of completeness to the applicant; or

(ii) notice of deficiency to the applicant, including a list of the additional information necessary to complete the application.

(b) The Director shall review written information submitted in response to a notice of deficiency within 30 days after the day on which the Director receives the supplemental information and shall again follow the procedures specified in Subsection R313-25-6(1)(a).

(c) If a document that is submitted as an application is substantially deficient, the Director may determine that it does not qualify as an application. Any such determination shall be made within 45 days of the document's submission and will include the Director's written findings.

(7) Tolling Periods. The periods specified for the Director's review and approval or denial under Subsections R313-25-6(3)(c)(i), (4)(b)(i), and (5)(b)(i) shall be tolled:

(a) while an owner or operator of a facility responds to the Director's request for information;

(b) during a public comment period; and

(c) while the federal government reviews the application.

(8) The Director shall prepare a detailed written explanation of the technical and regulatory basis for the Director's approval or denial of an approval application.

#### **R313-25-7. General Information.**

The general information shall include the following:

(1) identity of the applicant including:

(a) the full name, address, telephone number, and description of the business or occupation of the applicant;

(b) if the applicant is a partnership, the names and addresses of the partners and the principal location where the partnership does business;

(c) if the applicant is a corporation or an unincorporated association;

(i) the state where it is incorporated or organized and the principal location where it does business; and

(ii) the names and addresses of its directors and principal officers; and

(d) if the applicant is acting as an agent or representative of another person in filing the application, the applicant shall provide, with respect to the other person, information required under Subsection R313-25-7(1).

(2) Qualifications of the applicant shall include the following:

(a) the organizational structure of the applicant, both offsite and onsite, including a description of lines of authority and assignments of responsibilities, whether in the form of administrative directives, contract provisions, or otherwise;

(b) the technical qualifications, including training and experience of the applicant and members of the applicant's staff, to engage in the proposed activities. Minimum training and experience requirements for personnel filling key positions described in Subsection R313-25-7(2)(a) shall be provided;

(c) a description of the applicant's personnel training program; and

(d) the plan to maintain an adequate complement of trained personnel to carry out waste receipt, handling, and disposal operations in a safe manner.

(3) A description of:

(a) the location of the proposed disposal site;

(b) the general character of the proposed activities;

(c) the types and quantities of waste to be received, possessed, and disposed of;

(d) plans for use of the land disposal facility for purposes other than disposal of wastes; and

(e) the proposed facilities and equipment; and

(4) proposed schedules for construction, receipt of waste, and first emplacement of waste at the proposed land disposal facility.

#### **R313-25-8. Specific Technical Information.**

The application shall include certain technical information. The following information is needed to determine whether or not the applicant or licensee can meet the performance objectives and the applicable technical requirements of Rule R313-25:

(1) A description of the natural and demographic disposal site characteristics shall be based on and determined by disposal site selection and characterization activities. The description shall include geologic, geochemical, geotechnical, hydrologic, ecologic, archaeologic, meteorologic, climatologic, and biotic features of the disposal site and vicinity.

(2) Descriptions of the design features of the land disposal facility and of the disposal units for near-surface disposal shall include those design features related to infiltration of water; integrity of covers for disposal units; structural stability of backfill, wastes, and covers; contact of wastes with standing water; disposal site drainage; disposal site closure and stabilization; elimination to the extent practicable of long-term disposal site maintenance; inadvertent intrusion; occupational exposures; disposal site monitoring; and adequacy of the size of the buffer zone for monitoring and potential mitigative measures.

(3) Descriptions of the principal design criteria and their relationship to the performance objectives.

(4) Descriptions of the natural events or phenomena on which the design is based and their relationship to the principal design criteria.

(5) Descriptions of codes and standards which the applicant has applied to the design, and will apply to construction of the land disposal facilities.

(6) Descriptions of the construction and operation of the land disposal facility. The description shall include as a minimum the methods of construction of disposal units; waste emplacement; the procedures for and areas of waste segregation; types of intruder barriers; onsite traffic and drainage systems; survey control program; methods and areas of waste storage; and methods to control surface water and ground water access to the wastes. The description shall also include a description of the methods to be employed in the handling and disposal of wastes containing chelating agents or other non-radiological substances which might affect meeting the performance objectives of Rule R313-25

(7) A description of the disposal site closure plan, including those design features which are intended to facilitate disposal site closures and to eliminate the need for active maintenance after closure.

(8) Identification of the known natural resources at the disposal site whose exploitation could result in inadvertent intrusion into the wastes after removal of active institutional control.

(9) Descriptions of the kind, amount, classification and specifications of the radioactive material proposed to be received, possessed, and disposed of at the land disposal facility.

(10) Descriptions of quality assurance programs, tailored to low-level waste disposal, including audit and managerial controls, for the determination of natural disposal site characteristics and for quality control during the design, construction, operation, and closure of the land disposal facility and the receipt, handling, and emplacement of waste.

(11) A description of the radiation safety program for control and monitoring of radioactive effluents to ensure compliance with the performance objective in Section R313-25-20 and monitoring of occupational radiation exposure to ensure compliance with the requirements of Rule R313-15 and to control contamination of personnel, vehicles, equipment, buildings, and the disposal site. The applicant shall describe procedures, instrumentation, facilities, and equipment appropriate to both routine and emergency operations.

(12) A description of the environmental monitoring program to provide data and to evaluate potential health and environmental impacts and the plan for taking corrective measures if migration is indicated.

(13) Descriptions of the administrative procedures that the applicant will apply to control activities at the land disposal facility.

(14) A description of the facility electronic recordkeeping system as required in Section R313-25-33.

#### **R313-25-9. Technical Analyses.**

(1) The licensee or applicant shall conduct a site-specific performance assessment and receive Director approval prior to accepting any radioactive waste if:

(a) the waste was not considered in the development of the limits on Class A waste and not included in the analyses of the Draft Environmental Impact Statement on 10 CFR Part 61 "Licensing Requirements for Land Disposal of Radioactive Waste," NUREG-0782. U.S. Nuclear Regulatory Commission. September 1981, or

(b) the waste is likely to result in greater than 10 percent of the dose limits in Section R313-25-19 during the time period at which peak dose would occur, or

(c) the waste will result in greater than 10 percent of the total site source term over the operational life of the facility, or

(d) the disposal of the waste would result in an unanalyzed condition not considered in Rule R313-25.

(2) A licensee that has a previously-approved site-specific performance assessment that addressed a radioactive waste for which a site-specific performance assessment would otherwise be required under Subsection R313-25-9(1) shall notify the Director of the applicability of the previously-approved site-specific performance assessment at least 60 days prior to the anticipated acceptance of the radioactive waste.

(3) The licensee shall not accept radioactive waste until the Director has approved the information submitted pursuant to Subsections R313-25-9(1) or (2).

(4) The licensee or applicant shall also include in the specific technical information the following analyses needed to demonstrate that the performance objectives of Rule R313-25 will be met:

(a) Analyses demonstrating that the general population will be protected from releases of radioactivity shall consider the pathways of air, soil, ground water, surface water, plant uptake, and exhumation by burrowing animals. The analyses shall clearly identify and differentiate between the roles performed by the natural disposal site characteristics and design features in isolating and segregating the wastes. The analyses shall clearly demonstrate a reasonable assurance that the exposures to humans from the release of radioactivity will not exceed the limits set forth in Section R313-25-20.

(b) Analyses of the protection of inadvertent intruders shall demonstrate a reasonable assurance that the waste classification and segregation requirements will be met and that adequate barriers to inadvertent intrusion will be provided.

(c) Analysis of the protection of individuals during operations shall include assessments of expected exposures due to routine operations and likely accidents during handling, storage, and disposal of waste. The analysis shall provide reasonable assurance that exposures will be controlled to meet the requirements of Rule R313-15.

(d) Analyses of the long-term stability of the disposal site shall be based upon analyses of active natural processes including erosion, mass wasting, slope failure, settlement of wastes and backfill, infiltration through covers over disposal areas and adjacent soils, surface drainage of the disposal site, and the effects of changing lake levels. The analyses shall provide reasonable assurance that there will not be a need for ongoing active maintenance of the disposal site following closure.

(5)(a) Notwithstanding Subsection R313-25-9(1), any facility that proposes to land dispose of significant quantities of concentrated depleted uranium (more than one metric ton in total accumulation) after June 1, 2010, shall submit for the Director's review and approval a performance assessment that demonstrates that the performance standards specified in 10 CFR Part 61 and corresponding provisions of Utah rules will be met for the total quantities of concentrated depleted uranium and other wastes, including wastes already disposed of and the quantities of concentrated depleted uranium the facility now proposes to dispose. Any such performance assessment shall be revised as needed to reflect ongoing guidance and rulemaking from NRC. For purposes of this performance assessment, the compliance period shall be a minimum of 10,000 years. Additional

simulations shall be performed for the period where peak dose occurs and the results shall be analyzed qualitatively.

(b) No facility may dispose of significant quantities of concentrated depleted uranium prior to the approval by the Director of the performance assessment required in Subsection R313-25-9(5)(a).

(c) For purposes of this Subsection R313-25-9(5) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

**R313-25-10. Institutional Information.**

The institutional information submitted by the applicant shall include:

(1) A certification by the federal or state agency which owns the disposal site that the agency is prepared to accept transfer of the license when the provisions of Section R313-25-17 are met and will assume responsibility for institutional control after site closure and for post-closure observation and maintenance.

(2) Evidence, if the proposed disposal site is on land not owned by the federal or a state government, that arrangements have been made for assumption of ownership in fee by the federal or a state agency.

**R313-25-11. Financial Information.**

This information shall demonstrate that the applicant is financially qualified to carry out the activities for which the license is sought. The information shall meet other financial assurance requirements of Rule R313-25.

**R313-25-12. Requirements for Issuance of a License.**

A license for the receipt, possession, and disposal of waste containing radioactive material will be issued by the Director upon finding that:

(1) the issuance of the license will not constitute an unreasonable risk to the health and safety of the public;

(2) the applicant is qualified by reason of training and experience to carry out the described disposal operations in a manner that protects health and minimizes danger to life or property;

(3) the applicant's proposed disposal site, land disposal facility design, land disposal facility operations, including equipment, facilities, and procedures, disposal site closure, and post-closure institutional control, are adequate to protect the public health and safety as specified in the performance objectives of Section R313-25-20;

(4) the applicant's proposed disposal site, land disposal site facility design, land disposal facility operations, including equipment, facilities, and procedures, disposal site closure, and post-closure institutional control are adequate to protect the public health and safety in accordance with the performance objectives of Section R313-25-21;

(5) the applicant's proposed land disposal facility operations, including equipment, facilities, and procedures, are adequate to protect the public health and safety in accordance with Rule R313-15;

(6) the applicant's proposed disposal site, land disposal site facility design, land disposal facility operations, disposal site closure, and post-closure institutional control plans are adequate to protect the public health and safety in that they will provide reasonable assurance of the long-term stability of the disposed waste and the

disposal site and will eliminate to the extent practicable the need for continued maintenance of the disposal site following closure;

(7) the applicant's demonstration provides reasonable assurance that the requirements of Rule R313-25 will be met;

(8) the applicant's proposal for institutional control provides reasonable assurance that control will be provided for the length of time found necessary to ensure the findings in Subsections R313-25-12(3) through (6) and that the institutional control meets the requirements of Section R313-25-29.

(9) the financial or surety arrangements meet the requirements of Rule R313-25.

**R313-25-13. Conditions of Licenses.**

(1) A license issued under Rule R313-25, or a right thereunder, may not be transferred, assigned, or disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to a person, unless the Director finds, after securing full information, that the transfer is in accordance with the provisions of the Radiation Control Act and Rules and gives his consent in writing in the form of a license amendment.

(2) The Director may require the licensee to submit written statements under oath.

(3) The license will be terminated only on the full implementation of the final closure plan, including post-closure observation and maintenance, as approved by the Director.

(4) The licensee shall submit to the provisions of the Act now or hereafter in effect, and to all findings and orders of the Director. The terms and conditions of the license are subject to amendment, revision, or modification, by reason of amendments to, or by reason of rules, and orders issued in accordance with the terms of the Act and these rules.

(5) Persons licensed by the Director pursuant to Rule R313-25 shall confine possession and use of the materials to the locations and purposes authorized in the license.

(6) The licensee shall not dispose of waste until the Director has inspected the land disposal facility and has found it to conform with the description, design, and construction described in the application for a license.

(7) The Director may incorporate, by rule or order, into licenses at the time of issuance or thereafter, additional requirements and conditions with respect to the licensee's receipt, possession, and disposal of waste as the Director deems appropriate or necessary in order to:

(a) protect health or to minimize danger to life or property;

(b) require reports and the keeping of records, and to provide for inspections of licensed activities as the Director deems necessary or appropriate to effectuate the purposes of the Radiation Control Act and Rules.

(8) The authority to dispose of wastes expires on the expiration date stated in the license. An expiration date on a license applies only to the above ground activities and to the authority to dispose of waste. Failure to renew the license shall not relieve the licensee of responsibility for implementing site closure, post-closure observation, and transfer of the license to the site owner.

**R313-25-14. Application for Renewal or Closure.**

(1) An application for renewal or an application for closure under Section R313-25-15 shall be filed at least 90 days prior to license expiration.

(2) Applications for renewal of a license shall be filed in accordance with Sections R313-25-5 and R313-25-7 through 25-11. Applications for closure shall be filed in accordance with Section R313-25-15. Information contained in previous applications, statements, or reports filed with the Director under the license may be incorporated by reference if the references are clear and specific.

(3) If a licensee has filed an application in proper form for renewal of a license, the license shall not expire unless and until the Director has taken final action to deny application for renewal.

(4) In evaluating an application for license renewal, the Director will apply the criteria set forth in Section R313-25-12.

**R313-25-15. Contents of Application for Site Closure and Stabilization.**

(1) Prior to final closure of the disposal site, or as otherwise directed by the Director, the licensee shall submit an application to amend the license for closure. This closure application shall include a final revision and specific details of the land disposal [site]facility closure plan included in the original license application submitted and approved under Section R313-25-8(7). The plan shall include the following:

(a) additional geologic, hydrologic, or other data pertinent to the long-term containment of emplaced wastes obtained during the operational period;

(b) the results of tests, experiments, or other analyses relating to backfill of excavated areas, closure and sealing, waste migration and interaction with emplacement media, or other tests, experiments, or analyses pertinent to the long-term containment of emplaced waste within the disposal site;

(c) proposed revision of plans for:

(i) decontamination or dismantlement of surface facilities;

(ii) backfilling of excavated areas; or

(iii) stabilization of the disposal site for post-closure care.

(d) Significant new information regarding the environmental impact of closure activities and long-term performance of the disposal site.

(2) Upon review and consideration of an application to amend the license for closure submitted in accordance with Subsection R313-25-15(1), the Director shall issue an amendment authorizing closure if there is reasonable assurance that the long-term performance objectives of Rule R313-25 will be met.

**R313-25-16. Post-Closure Observation and Maintenance.**

The licensee shall observe, monitor, and carry out necessary maintenance and repairs at the disposal site until the site closure is complete and the license is transferred by the Director in accordance with Section R313-25-17. The licensee shall remain responsible for the disposal site for an additional five years. The Director may approve closure plans that provide for shorter or longer time periods of post-closure observation and maintenance, if sufficient rationale is developed for the variance.

**R313-25-17. Transfer of License.**

Following closure and the period of post-closure observation and maintenance, the licensee may apply for an amendment to transfer the license to the disposal site owner. The license shall be transferred when the Director finds:

(1) that the disposal site was closed according to the licensee's approved disposal site closure plan;

(2) that the licensee has provided reasonable assurance that the performance objectives of Rule R313-25 have been met;

(3) that funds for care and records required by Subsections R313-25-33(4) and (5) have been transferred to the disposal site owner;

(4) that the post-closure monitoring program is operational and can be implemented by the disposal site owner; and

(5) that the Federal or State agency which will assume responsibility for institutional control of the disposal site is prepared to assume responsibility and ensure that the institutional requirements found necessary under Subsection R313-25-12(8) will be met.

**R313-25-18. Termination of License.**

(1) Following the period of institutional control needed to meet the requirements of Section R313-25-12, the licensee may apply for an amendment to terminate the license.

(2) This application will be reviewed in accordance with the provisions of Section R313-22-32.

(3) A license shall be terminated only when the Director finds:

(a) that the institutional control requirements of Subsection R313-25-12(8) have been met;

(b) that additional requirements resulting from new information developed during the institutional control period have been met;

(c) that permanent monuments or markers warning against intrusion have been installed; and

(d) that records required by Subsections R313-25-33(4) and (5) have been sent to the party responsible for institutional control of the disposal site and a copy has been sent to the Director immediately prior to license termination.

**R313-25-19. General Requirement.**

Land disposal facilities shall be sited, designed, operated, closed, and controlled after closure so that reasonable assurance exists that exposures to individuals do not exceed the limits stated in Sections R313-25-20 and 25-23.

**R313-25-20. Protection of the General Population from Releases of Radioactivity.**

Concentrations of radioactive material which may be released to the general environment in ground water, surface water, air, soil, plants or animals shall not result in an annual dose exceeding an equivalent of 0.25 mSv (0.025 rem) to the whole body, 0.75 mSv (0.075 rem) to the thyroid, and 0.25 mSv (0.025 rem) to any other organ of any member of the public. No greater than 0.04 mSv (0.004 rem) committed effective dose equivalent or total effective dose equivalent to any member of the public shall come from groundwater. Reasonable efforts should be made to maintain releases of radioactivity in effluents to the general environment as low as is reasonably achievable.

**R313-25-21. Protection of Individuals from Inadvertent Intrusion.**

Design, operation, and closure of the land disposal facility shall ensure protection of any individuals inadvertently intruding into the disposal site and occupying the site or contacting the waste after active institutional controls over the disposal site are removed.

**R313-25-22. Protection of Individuals During Operations.**

Operations at the land disposal facility shall be conducted in compliance with the standards for radiation protection set out in Rule R313-15 of these rules, except for release of radioactivity in effluents from the land disposal facility, which shall be governed by Section R313-25-20. Every reasonable effort should be made to maintain radiation exposures as low as is reasonably achievable, ALARA.

**R313-25-23. Stability of the Disposal Site After Closure.**

The disposal facility shall be sited, designed, used, operated, and closed to achieve long-term stability of the disposal site and to eliminate, to the extent practicable, the need for ongoing active maintenance of the disposal site following closure so that only surveillance, monitoring, or minor custodial care are required.

**R313-25-24. Disposal Site Suitability Requirements for Land Disposal - Near-Surface Disposal.**

(1) The primary emphasis in disposal site suitability is given to isolation of wastes and to disposal site features that ensure that the long-term performance objectives are met.

(2) The disposal site shall be capable of being characterized, modeled, analyzed and monitored.

(3) Within the region where the facility is to be located, a disposal site should be selected so that projected population growth and future developments are not likely to affect the ability of the disposal facility to meet the performance objectives of Rule R313-25.

(4) Areas shall be avoided having known natural resources which, if exploited, would result in failure to meet the performance objectives of Rule R313-25.

(5) The disposal site shall be generally well drained and free of areas of flooding or frequent ponding. Waste disposal shall not take place in a 100-year flood plain, coastal high-hazard area or wetland, as defined in Executive Order 11988, "Floodplain Management Guidelines."

(6) Upstream drainage areas shall be minimized to decrease the amount of runoff which could erode or inundate waste disposal units.

(7) The disposal site shall provide sufficient depth to the water table that ground water intrusion, perennial or otherwise, into the waste will not occur. The Director will consider an exception to this requirement to allow disposal below the water table if it can be conclusively shown that disposal site characteristics will result in molecular diffusion being the predominant means of radionuclide movement and the rate of movement will result in the performance objectives being met. In no case will waste disposal be permitted in the zone of fluctuation of the water table.

(8) The hydrogeologic unit used for disposal shall not discharge ground water to the surface within the disposal site.

(9) Areas shall be avoided where tectonic processes such as faulting, folding, seismic activity, vulcanism, or similar phenomena may occur with such frequency and extent to significantly affect the ability of the disposal site to meet the performance objectives of Rule R313-25 or may preclude defensible modeling and prediction of long-term impacts.

(10) Areas shall be avoided where surface geologic processes such as mass wasting, erosion, slumping, landsliding, or weathering occur with sufficient such frequency and extent to significantly affect the ability of the disposal site to meet the

performance objectives of Rule R313-25, or may preclude defensible modeling and prediction of long-term impacts.

(11) The disposal site shall not be located where nearby facilities or activities could adversely impact the ability of the site to meet the performance objectives of Rule R313-25 or significantly mask the environmental monitoring program.

**R313-25-25. Disposal Site Design for Near-Surface Land Disposal.**

(1) Site design features shall be directed toward long-term isolation and avoidance of the need for continuing active maintenance after site closure.

(2) The disposal site design and operation shall be compatible with the disposal site closure and stabilization plan and lead to disposal site closure that provides reasonable assurance that the performance objectives will be met.

(3) The disposal site shall be designed to complement and improve, where appropriate, the ability of the disposal site's natural characteristics to assure that the performance objectives will be met.

(4) Covers shall be designed to minimize, to the extent practicable, water infiltration, to direct percolating or surface water away from the disposed waste, and to resist degradation by surface geologic processes and biotic activity.

(5) Surface features shall direct surface water drainage away from disposal units at velocities and gradients which will not result in erosion that will require ongoing active maintenance in the future.

(6) The disposal site shall be designed to minimize to the extent practicable the contact of water with waste during storage, the contact of standing water with waste during disposal, and the contact of percolating or standing water with wastes after disposal.

**R313-25-26. Near Surface Land Disposal Facility Operation and Disposal Site Closure.**

(1) Wastes designated as Class A pursuant to Section R313-15-1009 of these rules shall be segregated from other wastes by placing them in disposal units which are sufficiently separated from disposal units for the other waste classes so that any interaction between Class A wastes and other wastes will not result in the failure to meet the performance objectives of Rule R313-25. This segregation is not necessary for Class A wastes if they meet the stability requirements of Subsection R313-15-1009(2)(b).

(2) Wastes designated as Class C pursuant to Section R313-15-1009 shall be disposed of so that the top of the waste is a minimum of five meters below the top surface of the cover or shall be disposed of with intruder barriers that are designed to protect against an inadvertent intrusion for at least 500 years.

(3) Except as provided in Subsection R313-25-1(1), only waste classified as Class A, B, or C shall be acceptable for near-surface disposal. Wastes shall be disposed of in accordance with the requirements of Subsections R313-25-26(4) through 11.

(4) Wastes shall be emplaced in a manner that maintains the package integrity during emplacement, minimizes the void spaces between packages, and permits the void spaces to be filled.

(5) Void spaces between waste packages shall be filled with earth or other material to reduce future subsidence within the fill.

(6) Waste shall be placed and covered in a manner that limits the radiation dose rate at the surface of the cover to levels that at a minimum will permit the licensee to comply with all provisions of Sections R313-15-301 and 302 at the time the license is transferred pursuant to Section R313-25-17.

(7) The boundaries and locations of disposal units shall be accurately located and mapped by means of a land survey. Near-surface disposal units shall be marked in such a way that the boundaries of the units can be easily defined. Three permanent survey marker control points, referenced to United States Geological Survey or National Geodetic Survey control stations, shall be established on the site to facilitate surveys. The United States Geological Survey or National Geodetic Survey control stations shall provide horizontal and vertical controls as checked against United States Geological Survey or National Geodetic Survey record files.

(8) A buffer zone of land shall be maintained between any buried waste and the disposal site boundary and beneath the disposed waste. The buffer zone shall be of adequate dimensions to carry out environmental monitoring activities specified in Subsection R313-25-27(4) and take mitigative measures if needed.

(9) Closure and stabilization measures as set forth in the approved site closure plan shall be carried out as the disposal units are filled and covered.

(10) Active waste disposal operations shall not have an adverse effect on completed closure and stabilization measures.

(11) Only wastes containing or contaminated with radioactive material shall be disposed of at the disposal site.

(12) Proposals for disposal of waste that are not generally acceptable for near-surface disposal because the wastes form and disposal methods shall be different and, in general, more stringent than those specified for Class C waste, may be submitted to the Director for approval.

#### **R313-25-27. Environmental Monitoring.**

(1) At the time a license application is submitted, the applicant shall have conducted a preoperational monitoring program to provide basic environmental data on the disposal site characteristics. The applicant shall obtain information about the ecology, meteorology, climate, hydrology, geology, geochemistry, and seismology of the disposal site. For those characteristics that are subject to seasonal variation, data shall cover at least a 12-month period.

(2) During the land disposal facility site construction and operation, the licensee shall maintain an environmental monitoring program. Measurements and observations shall be made and recorded to provide data to evaluate the potential health and environmental impacts during both the construction and the operation of the facility and to enable the evaluation of long-term effects and need for mitigative measures. The monitoring system shall be capable of providing early warning of releases of waste from the disposal site before they leave the site boundary.

(3) After the disposal site is closed, the licensee responsible for post-operational surveillance of the disposal site shall maintain a monitoring system based on the operating history and the closure and stabilization of the disposal site. The monitoring system shall be capable of providing early warning of releases of waste from the disposal site before they leave the site boundary.

(4) The licensee shall have plans for taking corrective measures if the environmental monitoring program detects migration of waste which would indicate that the performance objectives may not be met.

#### **R313-25-28. Alternative Requirements for Design and Operations.**

The Director may, upon request or on the Director's own initiative, authorize provisions other than those set forth in Sections

R313-25-25 and 25-27 for the segregation and disposal of waste and for the design and operation of a land disposal facility on a specific basis, if it finds reasonable assurance of compliance with the performance objectives of Rule R313-25.

#### **R313-25-29. Institutional Requirements.**

(1) Land Ownership. Disposal of waste received from other persons may be permitted only on land owned in fee by the Federal or a State government.

(2) Institutional Control. The land owner or custodial agency shall conduct an institutional control program to physically control access to the disposal site following transfer of control of the disposal site from the disposal site operator. The institutional control program shall also include, but not be limited to, conducting an environmental monitoring program at the disposal site, periodic surveillance, minor custodial care, and other equivalents as determined by the Director, and administration of funds to cover the costs for these activities. The period of institutional controls will be determined by the Director, but institutional controls may not be relied upon for more than 100 years following transfer of control of the disposal site to the owner.

#### **R313-25-30. Applicant Qualifications and Assurances.**

The applicant shall show that it either possesses the necessary funds, or has reasonable assurance of obtaining the necessary funds, or by a combination of the two, to cover the estimated costs of conducting all licensed activities over the planned operating life of the project, including costs of construction and disposal.

#### **R313-25-31. Funding for Disposal Site Closure and Stabilization.**

(1) The applicant shall provide assurances prior to the commencement of operations, and a licensee shall provide assurances annually, that sufficient funds are or will be available to carry out land disposal [site]facility closure and stabilization, including:

(a) decontamination or dismantlement of land disposal facility structures, and

(b) closure and stabilization of the disposal site so that following transfer of the disposal site to the site owner, the need for ongoing active maintenance is eliminated to the extent practicable and only minor custodial care, surveillance, and monitoring are required. These assurances shall be based on Director approved cost estimates reflecting the Director approved plan for disposal site closure and stabilization. The applicant's or the licensee's cost estimates shall take into account total costs that would be incurred if an independent contractor were hired to perform the closure and stabilization work, in accordance with R313-25-31.5.

(2) In order to avoid unnecessary duplication and expense, the Director will accept financial sureties that have been consolidated with earmarked financial or surety arrangements established to meet requirements of Federal or other State agencies or local governmental bodies for decontamination, closure, and stabilization[~~:-~~] as to any unlicensed facility. The Director will accept these arrangements only if they are considered adequate to satisfy the requirements of Section R313-25-31 and if they clearly identify ~~[that]~~ the portion of the surety which covers the closure of ~~[the disposal site is clearly identified]~~ such unlicensed facility and is committed for use in accomplishing these activities.

(3) The licensee's financial or surety arrangement shall be submitted annually for review by the Director to assure that sufficient funds will be available for completion of the closure plan.

(4) The amount of the licensee's financial or surety arrangement shall change in accordance with changes in the predicted costs of closure and stabilization. Factors affecting closure and stabilization cost estimates include inflation, increases in the amount of disturbed land, changes in engineering plans, closure and stabilization that have already been accomplished, and other conditions affecting costs. The financial or surety arrangement shall be sufficient at all times to cover the costs of closure and stabilization of the disposal units that are expected to be used before the next license renewal.

(5) The financial or surety arrangement shall be written for a specified period of time and shall be automatically renewed unless the person who issues the surety notifies the Director; the beneficiary, the site owner; and the principal, the licensee, not less than 90 days prior to the renewal date of its intention not to renew. In such a situation, the licensee shall submit a replacement surety within 30 days after notification of cancellation. If the licensee fails to provide a replacement surety acceptable to the Director, the beneficiary may collect on the original surety.

(6) Proof of forfeiture shall not be necessary to collect the surety so that, in the event that the licensee could not provide an acceptable replacement surety within the required time, the surety shall be automatically collected prior to its expiration. The conditions described above shall be clearly stated on surety instruments.

(7) Financial or surety arrangements generally acceptable to the Director include surety bonds, cash deposits, certificates of deposit, deposits of government securities, escrow accounts, irrevocable letters or lines of credit, trust funds, and combinations of the above or other types of arrangements as may be approved by the Director. Self-insurance, or an arrangement which essentially constitutes self-insurance, will not satisfy the surety requirement for private sector applicants.

(8) The licensee's financial or surety arrangement shall remain in effect until the closure and stabilization program has been completed and approved by the Director, and the license has been transferred to the site owner.

(9) The financial assurance shall be based on an annual estimate and shall include closure and post-closure costs in all areas subject to the licensed or permitted portions of the facility;

(10) Financial assurance for an unlicensed facility that supports the operation of a licensed or permitted facility shall include the estimated cost of:

(a) the removal of structures;

(b) the testing of structures, roads, and property to ensure no radiological contamination has occurred outside of the licensed area; and

(c) stabilization and water infiltration control;

(11) Financial assurance cost estimates for a single approved waste disposal unit for which the volume of waste already placed and proposed to be placed in the unit within the surety period is less than the full waste capacity of the unit shall reflect the closure and post-closure costs for a waste disposal unit smaller than the approved waste disposal unit, if the unit could be reduced in size, meet closure requirements, and reduce closure costs;

(12) Financial assurance cost estimates for two approved adjacent waste disposal units that have been approved to be combined into a single unit and for which the combined volume of waste already placed and proposed to be placed in the units within the surety period is less than the combined waste capacity for the two separate units shall reflect either two separate waste disposal units or a single combined unit, whichever has the lowest closure and post-closure costs;

(13) The licensee or permittee shall annually propose closure and post-closure costs upon which financial assurance amounts are based, including costs of potential remediation at the licensed or permitted facility and, notwithstanding the obligations described in Subsection R313-25-31(10), any unlicensed facility;

(14) To provide the information in Subsection R313-25-31(13), the licensee or permittee shall provide:

(a) a proposed annual cost estimate using the current edition of RS Means Facilities Construction Cost Data or using a process, including an indirect cost multiplier, previously agreed to between the licensee or permittee and the Director; or

(b)(i) for an initial financial assurance determination and for each financial assurance determination every five years thereafter, a proposed competitive site-specific estimate for closure and post-closure care of the facility at least once every five years; and

(ii) for each year between a financial assurance determination described in Subsection R313-25-31(14)(b)(i), a proposed financial assurance estimate that accounts for current site conditions and that includes an annual inflation adjustment to the financial assurance determination using the Gross Domestic Product Implicit Price Deflator of the Bureau of Economic Analysis, United States Department of Commerce, calculated by dividing the latest annual deflator by the deflator for the previous year; and

(15) The Director shall:

(a) annually review the licensee's or permittee's proposed closure and postclosure estimate; and

(b) approve the estimate if the Director determines that the estimate would be sufficient to provide for closure and post-closure costs.

#### **R313-25-31.5. Calculation of Closure Costs.**

(1) In order to demonstrate the adequacy of closure, stabilization, post-closure, and institutional control funding in compliance with Section 19-3-104 and Subsection R313-25-31(1)(b), the applicant or licensee shall establish the level of costs that an independent contractor would incur by reliance on one of two methods, as follows:

(a) using the current edition of RS Means Facility Construction Cost Data; or

(b) using a competitive site-specific estimate.

(2) Any proposed competitive site-specific estimate submitted pursuant to Subsection R313-25-31(14)(b)(i) shall:

(a) be certified by a professional engineer or geologist licensed in Utah; and

(b) include sufficient detail so that the Director can determine that the cost estimate would be sufficient to provide for closure, post closure costs, and institutional control costs in compliance with Chapter 19-3 and Section R313-25-31.

(3) In the event that an applicant or licensee submits a competitive site-specific estimate, the Director may engage the services of a contractor or cost estimator who is familiar with competitive, site-specific construction costs in order to assist the Director in his review. In that event, the applicant or licensee shall reimburse the costs of the contractor or cost estimator's review.

(4) In the intervening four years following Director approval of a competitive site-specific estimate, a proposed cost estimate that accounts for current site conditions or changes to site conditions under Subsection R313-25-31(14)(b)(ii) shall be submitted by using either:

(a) the current edition of RS Means Facility Construction Cost Data; or

(b) the cost estimating rationale developed in the approved competitive site-specific estimate.

### **R313-25-32. Financial Assurances for Institutional Controls.**

(1) Prior to the issuance of the license, the applicant shall provide for Director approval, a binding arrangement, between the applicant and the disposal site owner that ensures that sufficient funds will be available to cover the costs of monitoring and required maintenance during the institutional control period. The binding arrangement shall be reviewed annually by the Director to ensure that changes in inflation, technology, and disposal facility operations are reflected in the arrangements.

(2) Subsequent changes to the binding arrangement specified in Subsection R313-25-32(1) relevant to institutional control shall be submitted to the Director for prior approval.

### **R313-25-33. Maintenance of Records, Reports, and Transfers.**

(1) Licensees shall maintain records and make reports in connection with the licensed activities as may be required by the conditions of the license or by the rules and orders of the Director.

(2) Records which are required by these rules or by license conditions shall be maintained for a period specified by the appropriate rules or by license condition. If a retention period is not otherwise specified, these records shall be maintained and transferred to the officials specified in Subsection R313-25-33(4) as a condition of license termination unless the Director otherwise authorizes their disposition.

(3) Records which shall be maintained pursuant to Rule R313-25 may be the original or a reproduced copy or microfilm if this reproduced copy or microfilm is capable of producing copy that is clear and legible at the end of the required retention period.

(4) Notwithstanding Subsections R313-25-33(1) through (3), copies of records of the location and the quantity of wastes contained in the disposal site shall be transferred upon license termination to the chief executive of the nearest municipality, the chief executive of the county in which the facility is located, the county zoning board or land development and planning agency, the State Governor, and other state, local, and federal governmental agencies as designated by the Director at the time of license termination.

(5) Following receipt and acceptance of a shipment of waste, the licensee shall record the date that the shipment is received at the disposal facility, the date of disposal of the waste, a traceable shipment manifest number, a description of any engineered barrier or structural overpack provided for disposal of the waste, the location of disposal at the disposal site, the condition of the waste packages as received, discrepancies between the materials listed on the manifest

and those received, the volume of any pallets, bracing, or other shipping or onsite generated materials that are contaminated, and are disposed of as contaminated or suspect materials, and evidence of leakage or damaged packages or radiation or contamination levels in excess of limits specified in U.S. Department of Transportation and Director regulations or rules. The licensee shall briefly describe repackaging operations of the waste packages included in the shipment, plus other information required by the Director as a license condition.

(6) Licensees authorized to dispose of waste received from other persons shall file a copy of their financial report or a certified financial statement annually with the Director in order to update the information base for determining financial qualifications.

(7)(a) Licensees authorized to dispose of waste received from other persons, pursuant to Rule R313-25, shall submit annual reports to the Director. Reports shall be submitted by the end of the first calendar quarter of each year for the preceding year.

(b) The reports shall include:

(i) specification of the quantity of each of the principal contaminants released to unrestricted areas in liquid and in airborne effluents during the preceding year;

(ii) the results of the environmental monitoring program;

(iii) a summary of licensee disposal unit survey and maintenance activities;

(iv) a summary, by waste class, of activities and quantities of radionuclides disposed of;

(v) instances in which observed site characteristics were significantly different from those described in the application for a license; and

(vi) other information the Director may require.

(c) If the quantities of waste released during the reporting period, monitoring results, or maintenance performed are significantly different from those predicted, the report shall cover this specifically.

(8) In addition to the other requirements in Section R313-25-33, the licensee shall store, or have stored, manifest and other information pertaining to receipt and disposal of radioactive waste in an electronic recordkeeping system.

(a) The manifest information that must be electronically stored is:

(i) that required in Appendix G of 10 CFR 20.1001 to 20.2402, (2006), which is incorporated into these rules by reference, with the exception of shipper and carrier telephone numbers and shipper and consignee certifications; and

(ii) that information required in Subsection R313-25-33(5).

(b) As specified in facility license conditions, the licensee shall report the stored information, or subsets of this information, on a computer-readable medium.

### **R313-25-34. Tests on Land Disposal Facilities.**

Licensees shall perform, or permit the Director to perform, any tests the Director deems appropriate or necessary for the administration of the rules in Rule R313-25, including, but not limited to, tests of;

(1) wastes;

(2) facilities used for the receipt, storage, treatment, handling or disposal of wastes;

(3) radiation detection and monitoring instruments; or

(4) other equipment and devices used in connection with the receipt, possession, handling, treatment, storage, or disposal of waste.

**R313-25-35. Director Inspections of Land Disposal Facilities.**

(1) Licensees shall afford to the Director, at reasonable times, opportunity to inspect waste not yet disposed of, and the premises, equipment, operations, and facilities in which wastes are received, possessed, handled, treated, stored, or disposed of.

(2) Licensees shall make available to the Director for inspection, upon reasonable notice, records kept by it pursuant to these rules. Authorized representatives of the Director may copy and take away copies of, for the Director's use, any records required to be kept pursuant to Rule R313-25.

**KEY: radiation, radioactive waste disposal, depleted uranium**

**Date of Enactment or Last Substantive Amendment: [~~October 21, 2014~~]January 12, 2018**

**Notice of Continuation: July 1, 2016**

**Authorizing, and Implemented or Interpreted Law: 19-3-104; 19-6-104(1); 19-6-107**

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NOV 15 2017

  
ENERGYSOLUTIONS

DRC-2017-009081

November 14, 2017

CD17-0254

Mr. Scott T. Anderson  
Director  
Utah Division of Waste Management and Radiation Control  
195 North 1950 West  
Salt Lake City, Utah 84114-4880

RECEIVED

NOV 14 2017

DEPARTMENT OF  
ENVIRONMENTAL QUALITY

Re: Notice of Proposed Rule - Utah Administrative Code R313-25 – License Requirements for Disposal of Radioactive Waste – General Provisions (DAR File No. 42204): **Public Comment**

Dear Mr. Anderson:

EnergySolutions submits comments on the Rule Analysis and associated revisions proposed by the Utah Division of Waste Management and Radiation Control to Utah Administrative Code (UAC) R313-25, “License Requirements for Disposal of Radioactive Waste – General Provisions,” developed in response to 2015 Senate Bill 173 (signed into law March 31, 2015) and 2017 Senate Bill 79, (signed into law March 24, 2017).<sup>1</sup> With the exception of the proposed changes, EnergySolutions concurs that the proposed rules implement the direction promulgated in the 2015 and 2017 legislation.

**1) UAC R313-25-31(10)(a)**

In this proposed rule, the Division requires that sufficient financial assurance be pledged by licensees to completely remove unlicensed facility structures. While no justification is provided in the published Rule Analysis, the Division has separately stated the purpose for this requirement as,

*“Unless removed during decommissioning and closure, the [unlicensed] facilities would constitute a nuisance that may lead to potential health and safety risks to the public, and almost certainly lead to increased security and maintenance costs to the [DWMRC] for the closed embankments and fences.”<sup>2</sup>*

<sup>1</sup> Office of Administrative Rules, “Utah State Bulletin” Office of Administrative Rules, Utah Department of Administrative Services, 2017:21. November 1, 2017. Pg. 83.

<sup>2</sup> Lundberg, Rusty. “Compliance EnergySolutions 2012 LLRW Annual Surety Submittal, Revision Date December 1, 2012, Engineering Module 13 (License Condition 73), Radioactive Materials License UT2300249: Request for Information.” Letter from the Director of the Utah Division of Radiation Control to Sean McCandless of EnergySolutions, November 5, 2013.

Since only above-ground segments of unlicensed structures that distinctly differ from the natural surrounding topography pose such a potential nuisance attraction, EnergySolutions requests the Division make the following corrections to UAC R313-25-31(10)(a).

*“(a) for removal of above-grade structures that are visibly distinct from the natural surrounding topography.”*

## 2) UAC R313-25-31.5(3)

For more than 20 years prior to the passage of the 2015 surety legislation, Division staff reviewed EnergySolutions' extensive and detailed annual surety revisions without the need of independent contractor support. These detailed reviews required detailed responses from EnergySolutions to Division requests for additional information. Following the 2015 revision of Utah Code Annotated 19-3-104(12)(f)(ii)(A), EnergySolutions submitted to the Division a competitive site-specific estimate for the 2015 combined Clive facility, prepared by a leading firm with extensive Utah-specific closure and post-closure cost experience.<sup>3</sup> As was a common practice prior to the 2015 surety legislation, EnergySolutions further provided additional information in response to Division staff in-house review requests, including arranging two meetings between Division staff and EnergySolutions' contractor (on August 8, 2016 and August 26, 2016). Following the Division staff in-house review, the 2015 combined surety estimate was approved.<sup>4</sup> An annual update for 2016 of the combined surety estimate (prepared according to the methodology authorized in Utah Code Annotated 19-3-104(12)(f)(ii)(B)) was next submitted<sup>5</sup> and approved following an eight month Division staff in-house review.<sup>6</sup> Therefore, the Division has abundantly demonstrated that it has ample resources and ability to conduct thorough in-house reviews of annual surety submittals (when prepared according to RS Means' unit cost data, a 5-year comprehensive site-specific third-party estimate and an inter-year annual update to the third-party comprehensive site-specific estimate).

The surety legislation does not allow the Division to secure, at the licensees' cost, an independent contractor for review of a licensee's surety submittal. In addition, there was no legislative intent to allow for this independent review and cost. While Division staff were intimately involved in the development and passage of the 2015 and 2017 surety legislative actions, including testifying in support of the legislation before the House

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<sup>3</sup> Orton, Timothy. "2015 Clive Combined Surety (CD15-0273)" Letter from the EnergySolutions to Scott Anderson, Director of the Utah Division of Radiation Control, November 30, 2015.

<sup>4</sup> Anderson, Scott. "2015 Combined Surety: UT2300478, UT2300249, UTD98259889" Letter from the Director of the Utah Division of Radiation Control to Vern Rogers of EnergySolutions, January 26, 2017.

<sup>5</sup> Orton, Timothy. "2016 Clive Combined Surety (CD16-0251)" Letter from the EnergySolutions to Scott Anderson, Director of the Utah Division of Radiation Control, December 30, 2016.

<sup>6</sup> Anderson, Scott. "2016 Combined Surety Annual Review and Class 1 Permit Modification Request" Letter from the Director of the Utah Division of Radiation Control to Vern Rogers of EnergySolutions, August 4, 2017.

Natural Resources, Agriculture and Environment Standing Committee<sup>7,8</sup> the Senate Business and Labor Committee<sup>9, 10</sup> there was no request for licensee-funded contractor augmentation made with either the 2015 or 2017 legislation.

The Division has demonstrated its ability to in-house review an excess of 20-years surety revisions prepared with RS Means unit costs. The Division has similarly conducted a successful in-house review of a third-party combined surety estimate. Similarly, the Division has also conducted an effective in-house review of an inter-year update of a combined surety estimate. Therefore, since there is no such allowance in either the 2015 or 2017 surety legislation, there were no such requests made while testifying on multiple occasions in support of these legislative actions, there is no such allowance included in Utah Code Annotated 19-3-104(12), and the Division has already demonstrated it possesses ample in-house resources to internally complete the required reviews, EnergySolutions requests the Division strike UAC R313-25-31.5(3) and remove corresponding unsupported Rule Analysis discussion and references.

~~(3) In the event that an applicant or licensee submits a competitive site specific estimate, the Director may engage the services of a contractor or cost estimator who is familiar with competitive, site specific construction costs in order to assist the Director in his review. In that event, the applicant or licensee shall reimburse the costs of the contractor or cost estimator's review.~~

(43) In the intervening four years following Director approval of a competitive site-specific estimate, a proposed cost estimate that accounts for current site conditions or changes to site conditions under Subsection R313-25-31(14)(b)(ii) shall be submitted by using either:

### 3) Rule Analysis: Anticipated Cost of Savings To Persons Other than Small Businesses, businesses, or Local Governmental Entities

In evaluating the financial burden created by this proposed rule on licensees, the Division acknowledges that “[*there*] is only one facility in Utah that is currently affected by the proposed rule changes.”<sup>11</sup> However, in evaluation of the financial burden created by this proposed rule on a licensee, no information was solicited from EnergySolutions regarding the economic impact from their efforts to comply with the 2015 driving statutory change. As such, the Division’s Rule Analysis is inadequate, due to lack of quantitative information.

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<sup>7</sup> “Minutes of the House Natural Resources, Agriculture, and Environment Standing Committee.” February 27, 2015.

<sup>8</sup> “Minutes of the House Natural Resources, Agriculture, and Environment Standing Committee.” March 1, 2017.

<sup>9</sup> “Minutes of the Senate Business and Labor Standing Committee.” February 11, 2015.

<sup>10</sup> “Minutes of the Senate Business and Labor Standing Committee.” January 25, 2017.

<sup>11</sup> Utah Bulletin, pg. 83.

In the Rule Analysis, the Division further claims that if “a licensee chooses the RS Means as the basis [to calculate an appropriate amount of surety] there is no added cost compared to existing requirements.”<sup>12</sup> Prior to passage of the 2015 and 2017 legislation, EnergySolutions was required to use only RS Means’ cost data and was prohibited from using actual cost data or local contracting experiences. Since 1995, the Division’s prohibition from using representative cost data forced EnergySolutions to annually pledge an excess of \$10 million more than necessary to prematurely close its facility. This additional cost burden was carried for more than 20 years. In fact, further unsupported Division changes to the indirect surety estimate cost methodology would have increased this overage to \$24 million above reasonable representative costs by the year 2020.

The financial burden to the State’s only licensee, as discussed in the Rule Analysis, further excludes any information nor was any again solicited from EnergySolutions, regarding the cost associated with their preparation of a 2015 third-party combined surety revision (\$250,000 contractor fees and \$35,000 licensee labor costs). Similarly, the licensee labor cost to provide the inter-year 2016 update to the 2015 third-party combined surety revision of approximately \$15,000 is absent from the Division’s Rule Analysis nor was sought from the State’s only licensee.

Therefore, EnergySolutions requests the Rule Analysis be amended to include quantitate economic burden information herein reported and exclude the Division’s unsupported justification for licensee-borne costs to augment Division staff with third-party independent surety consultation (as discussed above in Comment 2).

Prior to presentation to the Utah Board of Waste Management and Radiation Control for formal adoption, EnergySolutions requests the concerns identified herein be considered prior to final adoption of revisions to UAC R313-25.

Please contact me at (801) 649-2000 if you have any questions regarding these comments.

Sincerely,

  
Daniel B. Shrum  
Senior Vice President, Regulatory Affairs

Dan Shrum  
Nov 14 2017 7:48 AM  


cc Rusty Lundberg, DWMRC  
Thomas Ball, DWMRC

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<sup>12</sup> Utah Bulletin, pg. 84.

Department of  
Environmental Quality

Alan Matheson  
*Executive Director*

DIVISION OF WASTE MANAGEMENT  
AND RADIATION CONTROL

Scott T. Anderson  
*Director*

State of Utah

GARY R. HERBERT  
*Governor*

SPENCER J. COX  
*Lieutenant Governor*

January 10, 2018

Daniel B. Shrum  
Senior Vice President, Regulatory Affairs  
EnergySolutions LLC  
299 South Main Street, Suite 1700  
Salt Lake City, UT 84111

RE: Response to Public Comments concerning Utah Administrative Code R315-25  
License Requirements for Disposal of Radioactive Waste, General Provisions (DAR File No.  
42204)

Dear Mr. Shrum:

This letter is in response to EnergySolutions' comments on proposed changes to Utah Administrative Code R315-25, License Requirements for Disposal of Radioactive Waste, General Provisions (DAR File No. 42204). EnergySolutions provided three comments on the proposed rule. They will be addressed as submitted.

**1) UAC R313-25-31(10)(a)**

COMMENT:

Since only above-ground segments of unlicensed structures that distinctly differ from the natural surrounding topography pose such a potential nuisance attraction, EnergySolutions requests the Division make the following corrections to UAC R313-25-31(10)(a).

*“(a) for removal of above-grade structures that are visibly distinct from the natural surrounding topography;”*

RESPONSE:

The language “the removal of structures” in the proposed rule was taken verbatim from Senate Bill 79 as required by Subsection 19-3-104(12). It is the Division’s position that modifications to this language

would require legislative action and as such, neither the Division nor the Board is authorized to make any change beyond the text explicitly required by Senate Bill 79.

**2) UAC313-25-31.5(3)**

COMMENT:

Therefore, since there is no such allowance in either the 2015 or 2017 surety legislation, there were no such requests made while testifying on multiple occasions in support of these legislative actions, there is no such allowance included in Utah Code Annotated 19-3-104(12), and the Division has already demonstrated it possesses ample in-house resources to internally complete the required reviews, EnergySolutions requests the Division strike UAC R313-25-31.5(3) and remove corresponding unsupported Rule Analysis discussion and references.

~~(3) In the event that an applicant or licensee submits a competitive site specific estimate, the Director may engage the services of a contractor or cost estimator who is familiar with competitive, site specific construction costs in order to assist the Director in his review. In that event, the applicant or licensee shall reimburse the costs of the contractor or cost estimator's review.~~

(43) In the intervening four years following Director approval of a competitive site-specific estimate, a proposed cost estimate that accounts for current site conditions or changes to site conditions under Subsection R313-25-31(14)(b)(ii) shall be submitted by using either:

RESPONSE:

The Division disagrees with EnergySolutions' justification for its requested change. The Division is in a better position to understand the expertise or needs it might have in reviewing a surety submitted based on a third-party estimate. The Division needs to have the ability to provide a detailed review with an appropriate level of expertise to help ensure that the taxpayers of Utah are not held liable for any short comings in a proposed surety.

However, the Division has determined that this language can be removed from the proposed rule and will address it as a budgeting matter if EnergySolutions proposes to use a third-party review for future surety determinations.

**3) Rule Analysis: Anticipated Cost Savings to Persons other than Small Businesses, businesses, or Local Governmental Entities**

COMMENT:

Therefore, EnergySolutions requests the Rule Analysis be amended to include quantitate economic burden information herein reported and exclude the Division's unsupported justification for licensee-borne costs to augment Division staff with third-party independent surety consultation (as discussed above in Comment 2).

RESPONSE:

The Rule Analysis provided was based on rule changes required by Senate Bill 79 which was approved in the 2017 General Session. EnergySolutions' comments of costs that were incurred in 2015 were before this proposed rule change and those costs should have been addressed in the "Fiscal Note" as part of the legislative process. The rule analysis for this proposed rulemaking addresses the incremental costs associated with the proposed changes to R313-25. It is the Division's position that any increased

costs to EnergySolutions will occur only if EnergySolutions decides to uses a third-party contractor for surety determinations. Therefore, it is not a fixed cost caused by this rulemaking.

If you have any questions, please call Don Verbica at (801) 536-0206.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott T. Anderson", with a large, stylized flourish at the end.

Scott T. Anderson, Director  
Division of Waste Management and Radiation Control

STA/DGV/km

- c. Jeff Coombs, EHS, Health Officer, Tooele County Health Department  
Bryan Slade, Environmental Health Director, Tooele County Health Department

State of Utah  
Administrative Rule Analysis

**NOTICE OF CHANGE IN PROPOSED RULE**

- \* The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301.
- \* Please address questions regarding information on this notice to the agency.
- \* The full text of all rule filings is published in the Utah State Bulletin unless excluded because of space constraints.
- \* The full text of all rule filings may also be inspected at the Office of Administrative Rules.

DAR file no:		Date filed:	
State Admin Rule Filing Id:		Time filed:	
	<b>Agency No.</b>	<b>Rule No.</b>	<b>Section No.</b>
<b>Utah Admin. Code Ref (R no.):</b>	R 313	- 25	-
<b>Changed to Admin. Code Ref. (R no.):</b>	R	-	-

<b>1. Agency:</b>	Environmental Quality, Waste Management and Radiation Control, Radiation		
<b>Room no.:</b>	Second Floor		
<b>Building:</b>	Multi-agency State Office Building (MASOB)		
<b>Street address 1:</b>	195 North 1950 West		
<b>Street address 2:</b>			
<b>City, state, zip:</b>	Salt Lake City, UT, 84116		
<b>Mailing address 1:</b>	PO Box 144880		
<b>Mailing address 2:</b>			
<b>City, state, zip:</b>	Salt Lake City, UT, 84114-4880		
<b>Contact person(s):</b>			
<b>Name:</b>	<b>Phone:</b>	<b>Fax:</b>	<b>E-mail:</b>
Rusty Lundberg	801-536-4257	801-536-0222	<a href="mailto:rlundberg@utah.gov">rlundberg@utah.gov</a>
Tom Ball	801-536-0251	801-536-0222	<a href="mailto:tball@utah.gov">tball@utah.gov</a>

(Interested persons may inspect this filing at the above address or at the Office of Administrative Rules during business hours)

<b>2. Title of rule or section (catchline):</b>	License Requirements for Land Disposal of Radioactive Waste – General Provisions
<b>3. Type of notice:</b>	Change in Proposed Rule (Changes DAR No.: _____ )
<b>4. Purpose of the rule or reason for the change:</b>	In response to a comment received during the public comment period, the proposed change deletes a requirement for an applicant or licensee of a radioactive waste disposal facility to reimburse the costs of the agency to review the licensee’s competitive site-specific estimate utilizing the expertise of an outside consultant. It was determined that costs for reviewing a competitive site-specific estimate can be recovered using the Division’s current budgeting process.
<b>5. This change is a response to comments from the Administrative Rules Review Committee.</b>	No <u>X</u> ; Yes _____

<b>6.</b>	<p><b>Summary of the rule or change:</b></p> <p>Paragraph R313-25-31.5(3) is being deleted in response to a comment submitted by the licensee of the radioactive waste disposal facility during the public comment period. Deleting this paragraph removes the requirement for an applicant or licensee of a radioactive waste disposal facility to reimburse the costs of the Director to utilize the expertise of an outside contractor or cost estimator to review the applicant’s or licensee’s competitive site-specific estimate. It was determined that costs for reviewing a competitive site-specific estimate can be recovered using the Division’s current budgeting process.</p>
<b>7.</b>	<p><b>Aggregate anticipated cost or savings to:</b></p> <p><b>A) State budget:</b></p> <p><b>Affected:</b> No <input checked="" type="checkbox"/>; Yes ___</p> <p>In the originally proposed rule change published in the <i>Utah State Bulletin</i> on November 1, 2017, the applicant or licensee of a radioactive disposal facility has two options in providing a financial assurance cost estimate to the Director for his review. If the applicant or licensee elects to submit a competitive site-specific cost estimate and the Director chooses to engage the services of an outside contractor or cost estimator to assist the Director in his review, then the Director will utilize the current budget process to ensure adequate funding will exist to cover the cost of these services. The cost associated with the Director's review of and action on a cost estimate that does not involve contractor services will be covered by existing budget and staff resources. The impact to the state budget due to the revision with the change in proposed rule will be dependent on the discretion of the applicant or licensee as to which cost estimate option will be used.</p> <p><b>B) Local government:</b></p> <p><b>Affected:</b> No <input checked="" type="checkbox"/>; Yes ___</p> <p>No local governments own, operate, or are licensed to operate a radioactive waste disposal facility; therefore there is no cost or savings impact to local governments.</p> <p><b>C) Small businesses ("small business" means a business employing fewer than 50 persons):</b></p> <p><b>Affected:</b> No <input checked="" type="checkbox"/>; Yes ___</p> <p>The existing radioactive waste disposal facility is not considered a small business and no small businesses in Utah own, operate, or are licensed to operate a radioactive waste disposal facility; therefore there is no cost or savings impact to small businesses.</p> <p><b>D) Persons other than small businesses, businesses, 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):</b></p> <p><b>Affected:</b> No ___; Yes <input checked="" type="checkbox"/>.</p> <p>There is only one facility in Utah that is currently affected by the proposed rule changes. S.B. 79 (2017 General Session) creates an optional way that a licensee may establish the estimated closure and postclosure costs. If the licensee chooses RS Means as the basis of the cost estimate, then, based on comments received from the radioactive disposal facility, the cost to prepare and submit this cost estimate is approximately \$15,000. If the licensee chooses to submit a competitive site-specific estimate, the cost to a licensee to prepare such cost estimate will include hiring an outside contractor. Based on comments from the radioactive disposal facility, past costs to prepare and submit a combined cost estimate (from two separate third party estimates) were \$250,000 in contractor fees and \$35,000 for internal labor costs.</p> <p>In the originally proposed rule changes published on November 1, 2017, the licensee was required to provide funding if the Director sought outside assistance from a consultant or cost estimator who is familiar with local market costs to help evaluate the licensee’s submission. This change in proposed rule deletes the proposed requirement for a licensee to directly reimburse the costs of the agency using a consultant or cost estimator to review a licensee’s competitive site-specific estimate. However, deleting the proposed requirement from the rule does not eliminate the licensee’s obligation to cover the review costs. The Director will utilize the current budget process to ensure adequate funding for any contracted services will be part of the agency’s budget request. The costs to the licensee for the Director’s review can vary depending on the quality of the information submitted, the consulting expertise needed, and the time necessary to complete the review. These costs will be based on an approved state contract for third party consulting services and will likely be less than the cost information provided by the radioactive waste disposal facility above since it included the combined costs of two separate contractor fees. It is anticipated that a single cost estimate will be submitted for future competitive site-specific estimates.</p>

<b>8.</b>	<b>Compliance costs for affected persons:</b>	
	Existing law places the burden on the licensee to demonstrate that its financial surety is sufficient at all times to cover the costs of a third party contractor to complete the required closure and post-closure activities in the event the licensee is unable or unwilling to perform closure and postclosure activities. This serves to protect Utah taxpayers from paying for these activities. S.B. 173 (2015 General Session), S.B. 79 (2017 General Session), and the change in proposed rule do not alter the underlying compliance requirement; however, these changes do provide an alternate way in lieu of RS Means for the licensee to demonstrate compliance. The licensee’s potential compliance costs will be similar to those described above.	
<b>9.</b>	<b>A) Comments by the department head on the fiscal impact the rule may have on businesses:</b>	
	The rule revision being made by this change in proposed rule is responsive to comments made by the existing radioactive disposal facility during the public comment period. Removing the paragraph that requires an applicant or licensee of a radioactive waste disposal facility to reimburse the agency’s cost to utilize an outside contractor or cost estimator to review a competitive site-specific cost estimate allows the agency to address this as part of the existing budget process. Any agency costs for an outside contractor or cost estimator to review a competitive cost estimate will be incorporated into the agency’s budget request in order to ensure adequate funding will be available for any external contractor or cost estimator costs.	
	<b>B) Name and title of department head commenting on the fiscal impacts:</b>	
	Alan Matheson, Executive Director	
<b>10.</b>	<b>This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.</b>	
	<b>State code or constitution citations (required)</b> (e.g., Section 63G-3-402; Subsection 63G-3-601(3); Article IV) :	
	Section 19-3-104	Subsection 19-6-104(1)
	Section 19-6-107	
<b>11.</b>	<b>This rule adds, updates, or removes the following title of materials incorporated by references</b> (a copy of materials incorporated by reference must be submitted to the Office of Administrative Rules; <i>if none, leave blank</i> ):	
	<b>First Incorporation</b>	<b>Second Incorporation</b>
	<b>Official Title of Materials Incorporated (from title page)</b>	
	<b>Publisher</b>	
	<b>Date Issued</b>	
	<b>Issue, or version</b>	
	<b>ISBN Number (optional)</b>	
	<b>ISSN Number (optional)</b>	
	<b>Cost of Incorporated Reference</b>	
	<b>Action: Adds, updates, or removes</b>	
	(If this rule incorporates more than two items by reference, please attach additional pages)	
<b>12.</b>	<b>The public may submit written or oral comments to the agency identified in box 1.</b> (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the Utah State Bulletin. See Section 63G-3-302 and Rule R15-1 for more information.)	
	<b>A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy):</b>	
	<b>B) A public hearing (optional) will be held:</b>	
	<b>On (mm/dd/yyyy):</b>	<b>At (hh:mm AM/PM):</b>
		<b>At (place):</b>

<b>13.</b>	<b>This rule change may become effective on (mm/dd/yyyy):</b>	04/16/2018
NOTE: The date above is the date on which this rule MAY become effective. It is NOT the effective date. After the date designated in Box 12(A) above, the agency must submit a Notice of Effective Date to the Office of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over.		
<b>14.</b>	<b>Indexing information -- keywords</b> (maximum of four, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")); may not include the name of the agency:	
	radiation	radioactive waste disposal
	depleted uranium	
<b>15.</b>	<b>Attach an RTF document containing the text of this rule change (filename):</b>	R313-25.CPR.20180208.rtf
<b>To the agency:</b> Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the <i>Utah State Bulletin</i> , and delaying the first possible effective date.		
<b>AGENCY AUTHORIZATION</b>		
<b>Agency head or designee, and title:</b>	Scott Anderson, Director	<b>Date (mm/dd/yyyy):</b> 01/31/2018

eRules v. 2: ChangedProposedRule.doc 09/03/2009 (<http://www.rules.utah.gov/agencyresources/forms/ChangedProposedRule.doc>)

**Appendix 1: Regulatory Impact Summary Table\***

<b>Fiscal Costs</b>	FY 2018	FY 2019	FY 2020
State Government	\$0	\$0	\$0
Local Government	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0
Other Person	\$0	\$0	\$0
<b>Total Fiscal Costs:</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Fiscal Benefits</b>			
State Government	\$0	\$0	\$0
Local Government	\$0	\$0	\$0
Small Businesses	\$0	\$0	\$0
Non-Small Businesses	\$0	\$0	\$0
Other Persons	\$0	\$0	\$0
<b>Total Fiscal Benefits:</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Net Fiscal Benefits:	\$0	\$0	\$0

\*This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts for State Government, Local Government, Small Businesses and Other Persons are described above. Inestimable impacts for Non-Small Businesses are described below.

**Appendix 2: Regulatory Impact to Non-Small Businesses**

There is one radioactive waste disposal facility licensee in Utah. Based on Utah law, an applicant or licensee of a radioactive waste disposal facility is required to submit an annual cost estimate for the closure and post-closure care of the facility that is based on RS Means data or, for the initial cost estimate and every five years thereafter, a competitive site-specific estimate. During the public comment period for the proposed rule changes, the licensee indicated that the cost to prepare and submit the 2016 annual cost estimate, as an update to the 2015 cost estimate, was approximately \$15,000. The cost to the licensee to prepare and submit the 2015 annual cost estimate, which was an aggregate of two separate competitive site-specific cost estimates was \$250,000 in external contractor fees and \$35,000 in internal labor costs. It is anticipated that until 2020, the cost to the licensee to prepare and submit the annual cost estimates will be similar to the 2016 cost of \$15,000. Although inestimable due to the variable nature of future external contractor costs, it is anticipated that the annual cost estimate for 2020, when the next competitive site-specific cost estimate will be prepared, will be less than the cost of the 2015 competitive site-specific cost estimate since the 2020 will likely involve a single external contractor to prepare the competitive cost estimate.

The Executive Director of the Department of Environmental Quality, Alan Matheson, has reviewed and approved this fiscal analysis.

**R313. Environmental Quality, Waste Management and Radiation Control, Radiation.**

**R313-25. License Requirements for Land Disposal of Radioactive Waste - General Provisions.**

**R313-25-1. Purpose and Authority.**

- (1) The purpose of this rule is to prescribe the requirements for the issuance of licenses for the land disposal of wastes received from other persons.
- (2) The rules set forth herein are adopted pursuant to the provisions of Subsections 19-3-104(4), 19-3-104(7), 19-3-104(10), and 19-3-104(11).
- (3) The requirements of Rule R313-25 are in addition to, and not in substitution for, other applicable requirements of these rules.

**R313-25-2. Definitions.**

As used in Rule R313-25, the following definitions apply:

"Active maintenance" means significant activity needed during the period of institutional control to maintain a reasonable assurance that the performance objectives in Sections R313-25-20 and R313-25-21 are met. Active maintenance may include the pumping and treatment of water from a disposal unit, the replacement of a disposal unit cover, or other episodic or continuous measures. Active maintenance does not include custodial activities like repair of fencing, repair or replacement of monitoring equipment, revegetation, minor additions to soil cover, minor repair of disposal unit covers, and general disposal site upkeep.

"Approval application" means an application by a radioactive waste facility regulated under Title 19, Chapter 3 or Title 19, Chapter 5, for a permit, permit modification, license, license amendment, or other authorization.

"Buffer zone" means a portion of the disposal site that is controlled by the licensee and that lies under the disposal units and between the disposal units and the boundary of the site.

"Competitive site-specific estimate" means a market-based cost estimate identifying and calculating the reasonable closure costs of a land disposal facility, including the cost of each activity in the closure, post-closure and institutional care of such facility, and market-based overhead(s) provided in sufficient detail to allow the Director to review and approve the same.

"Custodial agency" means an agency of the government designated to act on behalf of the government owner of the disposal site.

"Day" for purposes of this Rule means calendar days.

"Disposal" means the isolation of wastes from the biosphere by placing them in a land disposal facility.

"Disposal site" means that portion of a land disposal facility which is used for disposal of waste. It consists of disposal units and a buffer zone.

"Disposal unit" means a discrete portion of the disposal site into which waste is placed for disposal. For near-surface disposal, the disposal unit may be a trench.

"Engineered barrier" means a man-made structure or device intended to improve the land disposal facility's performance under Rule R313-25.

"Groundwater permit" means a groundwater quality discharge permit issued under the authority of Title 19, Chapter 5 and Rule R317-6.

"Hydrogeologic unit" means a soil or rock unit or zone that has a distinct influence on the storage or movement of ground water.

"Inadvertent intruder" means a person who may enter the disposal site after closure and engage in activities unrelated to post closure management, such as agriculture, dwelling construction, or other pursuits which could, by disturbing the site, expose individuals to radiation.

"Intruder barrier" means a sufficient depth of cover over the waste that inhibits contact with waste and helps to ensure that radiation exposures to an inadvertent intruder will meet the performance objectives set forth in Rule R313-25, or engineered structures that provide equivalent protection to the inadvertent intruder.

"Land disposal facility" means the land, buildings and structures, and equipment which are intended to be used for the disposal of radioactive waste. Land disposal facility also includes any land, buildings and structures, and equipment adjacent to such land disposal facility used for the receipt, storage, treatment, or processing of radioactive waste.

"Monitoring" means observing and making measurements to provide data to evaluate the performance and characteristics of the disposal site.

"Near-surface disposal facility" means a land disposal facility in which waste is disposed of within approximately the upper 30 meters of the earth's surface.

"Site closure and stabilization" means those actions that are taken upon completion of operations that prepare the disposal site for custodial care, and that assure that the disposal site will remain stable and will not need ongoing active maintenance.

"Stability" means structural stability.

"Surveillance" means monitoring and observation of the disposal site to detect needs for maintenance or custodial care, to observe evidence of intrusion, and to ascertain compliance with other license and regulatory requirements.

"Tolling period," for purposes of this Rule, means a period during which days are not counted toward the deadlines specified in Subsections R313-25-6(3)(c), (4)(c)(i), (5)(b)(i), and (6)(b)(i).

"Treatment" means the stabilization or the reduction in volume of waste by a chemical or a physical process.

"Unlicensed facility" means a structure, road, or property adjacent to, but outside of, a licensed or permitted area and that is not used for waste disposal or management.

"Waste" means those low-level radioactive wastes containing radioactive material that are acceptable for disposal in a land disposal facility. For the purposes of this definition, low-level radioactive waste means radioactive waste not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct material as defined in (b), (c), and (d) of the definition for byproduct material found in Section R313-12-3.

### **R313-25-3. Pre-licensing Plan Approval Criteria for Siting of Commercial Radioactive Waste Disposal Facilities.**

(1) Persons proposing to construct or operate commercial radioactive waste disposal facilities, including waste incinerators, shall obtain a plan approval from the Director before applying for a license. Plans shall meet the siting criteria and plan approval requirements of Section R313-25-3.

(2) The siting criteria and plan approval requirements in Section R313-25-3 apply to preclicensing plan approval applications.

(3) Treatment and disposal facilities, including commercial radioactive waste incinerators, shall not be located:

(a) within or underlain by:

- (i) national, state, and county parks, monuments, and recreation areas; designated wilderness and wilderness study areas; wild and scenic river areas;
- (ii) ecologically and scientifically significant natural areas, including wildlife management areas and habitats for listed or proposed endangered species as designated by federal law;
- (iii) 100 year floodplains;
- (iv) areas 200 feet distant from Holocene faults;
- (v) underground mines, salt domes and salt beds;
- (vi) dam failure flood areas;
- (vii) areas subject to landslide, mud flow, or other earth movement, unless adverse impacts can be mitigated;
- (viii) farmlands classified or evaluated as "prime", "unique", or of "statewide importance" by the U.S. Department of Agricultural Soil Conservation Service under the Prime Farmland Protection Act;
- (ix) areas five miles distant from existing permanent dwellings, residential areas, and other habitable structures, including schools, churches, and historic structures;
- (x) areas five miles distant from surface waters including intermittent streams, perennial streams, rivers, lakes, reservoirs, and wetlands;
- (xi) areas 1000 feet distant from archeological sites to which adverse impacts cannot reasonably be mitigated;
- (xii) recharge zones of aquifers containing ground water which has a total dissolved solids content of less than 10,000 mg/l;

or

- (xiii) drinking water source protection areas designated by the Utah Drinking Water Board;
- (b) in areas:
  - (i) above or underlain by aquifers containing ground water which has a total dissolved solids content of less than 500 mg/l and which aquifers do not exceed state ground water standards for pollutants;
  - (ii) above or underlain by aquifers containing ground water which has a total dissolved solids content between 3000 and 10,000 mg/l when the distance from the surface to the ground water is less than 100 ft.;
  - (iii) areas of extensive withdrawal of water, mineral or energy resources.
  - (iv) above or underlain by weak and unstable soils, including soils that lose their ability to support foundations as a result of hydrocompaction, expansion, or shrinkage;
  - (v) above or underlain by karst terrains.
- (4) Commercial radioactive waste disposal facilities may not be located within a distance to existing drinking water wells and watersheds for public water supplies of five years ground water travel time plus 1000 feet.
- (5) The plan approval siting application shall include hydraulic conductivity and other information necessary to estimate adequately the ground water travel distance.
- (6) The plan approval siting application shall include the results of studies adequate to identify the presence of ground water aquifers in the area of the proposed site and to assess the quality of the ground water of all aquifers identified in the area of the proposed site.
- (7) Emergency response and safety.
  - (a) The plan approval siting application shall demonstrate the availability and adequacy of services for on-site emergencies, including medical and fire response. The application shall provide written evidence that the applicant has coordinated on-site emergency response plans with the local emergency planning committee (LEPC).
  - (b) The plan approval siting application shall include a comprehensive plan for responding to emergencies at the site.
  - (c) The plan approval siting application shall show proposed routes for transportation of radioactive wastes within the state. The plan approval siting application shall address the transportation means and routes available to evacuate the population at risk in the event of on-site accidents, including spills and fires.
- (8) The plan approval siting application shall provide evidence that if the proposed disposal site is on land not owned by state or federal government, that arrangements have been made for assumption of ownership in fee by a state or federal agency.
- (9) Siting Authority. The Director recognizes that Titles 10 and 17 of the Utah Code give cities and counties authority for local use planning and zoning. Nothing in Section R313-25-3 precludes cities and counties from establishing additional requirements as provided by applicable state and federal law.

**R313-25-4. License Required.**

- (1) Persons shall not receive, possess, store, treat, or dispose of waste at a land disposal facility unless authorized by a license issued by the Director pursuant to the Utah Radiation Control Act and Rules R313-25 and R313-22.
- (2) Persons shall file an application with the Director pursuant to Section R313-22-32 and obtain a license as provided in Rule R313-25 before commencement of construction of a land disposal facility. Failure to comply with this requirement may be grounds for denial of a license and other penalties established by law and rules.

**R313-25-5. Content of Application.**

In addition to the requirements set forth in Section R313-22-33, an application to receive from others, possess, and dispose of wastes shall consist of general information, specific technical information, institutional information, and financial information as set forth in Sections R313-25-7 through R313-25-11.

**R313-25-6. Director Review of Application.**

(1) The Director shall review each approval application to determine whether it complies with applicable statutory and regulatory requirements. Approval applications will be categorized as Category 1, 2, 3 and 4 applications, as provided in Subsections R313-25-6(2) through (5).

(2) Category 1 applications.

(a) A Category 1 application is an application that:

- (i) is administrative in nature;
- (ii) requires limited scrutiny by the Director; and
- (iii) does not require public comment.

(b) Examples of a Category 1 application include an application to:

- (i) correct typographical errors;
- (ii) Change the name, address, or phone number of persons or agencies identified in the license or permit;
- (iii) change the procedures or location for maintaining records; or
- (iv) extend the date for compliance with a permit or license requirement by no more than 120 days.

(c) The Director shall review and approve or deny a Category 1 application within 30 days after the day on which the Director receives the application.

(3) Category 2 applications:

(a) A Category 2 application is one that is not a Category 1, 3 or 4 application.

(b) Examples of a Category 2 application include:

- (i) Increase in process, storage, or disposal capacity
- (ii) Change engineering design, construction, or process controls;
- (iii) Approve a proposed corrective action plan; or
- (iv) Transfer direct control of a license or groundwater permit.

(c)(i) The Director shall review and approve or deny a Category 2 application within 180 days after the day on which the Director receives the application.

(ii) The period described in Subsection R313-25-6(3)(c)(i) shall be tolled as provided in Subsection R313-25-6(7).

(4) Category 3 applications.

(a) Category 3 application is an application for:

- (i) a radioactive waste license renewal;
- (ii) a groundwater permit renewal;
- (iii) an amendment to an existing radioactive waste license or groundwater permit to allow a new disposal cell;
- (iv) an amendment to an existing radioactive waste license or groundwater permit that would allow the facility to eliminate groundwater monitoring; or
- (v) approval of a radioactive waste disposal facility closure plan.

(b)(i) The Director shall review and approve or deny a Category 3 application within 365 days after the day on which the Director receives the application.

(ii) The period described in Subsection R313-25-6(4)(b)(i) shall be tolled as provided in Subsection R313-25-6(7).

(5) Category 4 applications.

(a) A Category 4 application is an application for:

- (i) a new radioactive waste license; or
- (ii) a new groundwater permit.

(b)(i) The Director shall review and approve or deny a Category 4 application within 540 days after the day on which the Director receives the application.

(ii) The period described in Subsection R313-25-6(5)(b)(i) shall be tolled as provided in Subsection R313-25-6(7).

(6)(a) Within 60 days after the day on which the Director receives a Category 2, 3 or 4 approval application, the Director shall determine whether the application is complete and contains all the information necessary to process it for approval and make a finding by issuance of a written:

- (i) notice of completeness to the applicant; or
- (ii) notice of deficiency to the applicant, including a list of the additional information necessary to complete the application.

(b) The Director shall review written information submitted in response to a notice of deficiency within 30 days after the day on which the Director receives the supplemental information and shall again follow the procedures specified in Subsection R313-25-6(1)(a).

(c) If a document that is submitted as an application is substantially deficient, the Director may determine that it does not qualify as an application. Any such determination shall be made within 45 days of the document's submission and will include the Director's written findings.

(7) Tolling Periods. The periods specified for the Director's review and approval or denial under Subsections R313-25-6(3)(c)(i), (4)(b)(i), and (5)(b)(i) shall be tolled:

- (a) while an owner or operator of a facility responds to the Director's request for information;
- (b) during a public comment period; and
- (c) while the federal government reviews the application.

(8) The Director shall prepare a detailed written explanation of the technical and regulatory basis for the Director's approval or denial of an approval application.

### **R313-25-7. General Information.**

The general information shall include the following:

- (1) identity of the applicant including:
  - (a) the full name, address, telephone number, and description of the business or occupation of the applicant;
  - (b) if the applicant is a partnership, the names and addresses of the partners and the principal location where the partnership does business;
  - (c) if the applicant is a corporation or an unincorporated association;
    - (i) the state where it is incorporated or organized and the principal location where it does business; and
    - (ii) the names and addresses of its directors and principal officers; and
  - (d) if the applicant is acting as an agent or representative of another person in filing the application, the applicant shall provide, with respect to the other person, information required under Subsection R313-25-7(1).
- (2) Qualifications of the applicant shall include the following;
  - (a) the organizational structure of the applicant, both offsite and onsite, including a description of lines of authority and assignments of responsibilities, whether in the form of administrative directives, contract provisions, or otherwise;
  - (b) the technical qualifications, including training and experience of the applicant and members of the applicant's staff, to engage in the proposed activities. Minimum training and experience requirements for personnel filling key positions described in Subsection R313-25-7(2)(a) shall be provided;
  - (c) a description of the applicant's personnel training program; and
  - (d) the plan to maintain an adequate complement of trained personnel to carry out waste receipt, handling, and disposal operations in a safe manner.
- (3) A description of:
  - (a) the location of the proposed disposal site;
  - (b) the general character of the proposed activities;
  - (c) the types and quantities of waste to be received, possessed, and disposed of;
  - (d) plans for use of the land disposal facility for purposes other than disposal of wastes; and
  - (e) the proposed facilities and equipment; and
- (4) proposed schedules for construction, receipt of waste, and first emplacement of waste at the proposed land disposal facility.

### **R313-25-8. Specific Technical Information.**

The application shall include certain technical information. The following information is needed to determine whether or not the applicant or licensee can meet the performance objectives and the applicable technical requirements of Rule R313-25:

- (1) A description of the natural and demographic disposal site characteristics shall be based on and determined by disposal site selection and characterization activities. The description shall include geologic, geochemical, geotechnical, hydrologic, ecologic, archaeologic, meteorologic, climatologic, and biotic features of the disposal site and vicinity.
- (2) Descriptions of the design features of the land disposal facility and of the disposal units for near-surface disposal shall include those design features related to infiltration of water; integrity of covers for disposal units; structural stability of backfill, wastes, and covers; contact of wastes with standing water; disposal site drainage; disposal site closure and stabilization; elimination to the extent practicable of long-term disposal site maintenance; inadvertent intrusion; occupational exposures; disposal site monitoring; and adequacy of the size of the buffer zone for monitoring and potential mitigative measures.
- (3) Descriptions of the principal design criteria and their relationship to the performance objectives.
- (4) Descriptions of the natural events or phenomena on which the design is based and their relationship to the principal design criteria.
- (5) Descriptions of codes and standards which the applicant has applied to the design, and will apply to construction of the land disposal facilities.
- (6) Descriptions of the construction and operation of the land disposal facility. The description shall include as a minimum the methods of construction of disposal units; waste emplacement; the procedures for and areas of waste segregation; types of intruder barriers; onsite traffic and drainage systems; survey control program; methods and areas of waste storage; and methods to control surface water and ground water access to the wastes. The description shall also include a description of the methods to be employed in the handling and disposal of wastes containing chelating agents or other non-radiological substances which might affect meeting the performance objectives of Rule R313-25
- (7) A description of the disposal site closure plan, including those design features which are intended to facilitate disposal site closures and to eliminate the need for active maintenance after closure.
- (8) Identification of the known natural resources at the disposal site whose exploitation could result in inadvertent intrusion into the wastes after removal of active institutional control.
- (9) Descriptions of the kind, amount, classification and specifications of the radioactive material proposed to be received, possessed, and disposed of at the land disposal facility.
- (10) Descriptions of quality assurance programs, tailored to low-level waste disposal, including audit and managerial controls, for the determination of natural disposal site characteristics and for quality control during the design, construction, operation, and closure of the land disposal facility and the receipt, handling, and emplacement of waste.

(11) A description of the radiation safety program for control and monitoring of radioactive effluents to ensure compliance with the performance objective in Section R313-25-20 and monitoring of occupational radiation exposure to ensure compliance with the requirements of Rule R313-15 and to control contamination of personnel, vehicles, equipment, buildings, and the disposal site. The applicant shall describe procedures, instrumentation, facilities, and equipment appropriate to both routine and emergency operations.

(12) A description of the environmental monitoring program to provide data and to evaluate potential health and environmental impacts and the plan for taking corrective measures if migration is indicated.

(13) Descriptions of the administrative procedures that the applicant will apply to control activities at the land disposal facility.

(14) A description of the facility electronic recordkeeping system as required in Section R313-25-33.

#### **R313-25-9. Technical Analyses.**

(1) The licensee or applicant shall conduct a site-specific performance assessment and receive Director approval prior to accepting any radioactive waste if:

(a) the waste was not considered in the development of the limits on Class A waste and not included in the analyses of the Draft Environmental Impact Statement on 10 CFR Part 61 "Licensing Requirements for Land Disposal of Radioactive Waste," NUREG-0782. U.S. Nuclear Regulatory Commission. September 1981, or

(b) the waste is likely to result in greater than 10 percent of the dose limits in Section R313-25-19 during the time period at which peak dose would occur, or

(c) the waste will result in greater than 10 percent of the total site source term over the operational life of the facility, or

(d) the disposal of the waste would result in an unanalyzed condition not considered in Rule R313-25.

(2) A licensee that has a previously-approved site-specific performance assessment that addressed a radioactive waste for which a site-specific performance assessment would otherwise be required under Subsection R313-25-9(1) shall notify the Director of the applicability of the previously-approved site-specific performance assessment at least 60 days prior to the anticipated acceptance of the radioactive waste.

(3) The licensee shall not accept radioactive waste until the Director has approved the information submitted pursuant to Subsections R313-25-9(1) or (2).

(4) The licensee or applicant shall also include in the specific technical information the following analyses needed to demonstrate that the performance objectives of Rule R313-25 will be met:

(a) Analyses demonstrating that the general population will be protected from releases of radioactivity shall consider the pathways of air, soil, ground water, surface water, plant uptake, and exhumation by burrowing animals. The analyses shall clearly identify and differentiate between the roles performed by the natural disposal site characteristics and design features in isolating and segregating the wastes. The analyses shall clearly demonstrate a reasonable assurance that the exposures to humans from the release of radioactivity will not exceed the limits set forth in Section R313-25-20.

(b) Analyses of the protection of inadvertent intruders shall demonstrate a reasonable assurance that the waste classification and segregation requirements will be met and that adequate barriers to inadvertent intrusion will be provided.

(c) Analysis of the protection of individuals during operations shall include assessments of expected exposures due to routine operations and likely accidents during handling, storage, and disposal of waste. The analysis shall provide reasonable assurance that exposures will be controlled to meet the requirements of Rule R313-15.

(d) Analyses of the long-term stability of the disposal site shall be based upon analyses of active natural processes including erosion, mass wasting, slope failure, settlement of wastes and backfill, infiltration through covers over disposal areas and adjacent soils, surface drainage of the disposal site, and the effects of changing lake levels. The analyses shall provide reasonable assurance that there will not be a need for ongoing active maintenance of the disposal site following closure.

(5)(a) Notwithstanding Subsection R313-25-9(1), any facility that proposes to land dispose of significant quantities of concentrated depleted uranium (more than one metric ton in total accumulation) after June 1, 2010, shall submit for the Director's review and approval a performance assessment that demonstrates that the performance standards specified in 10 CFR Part 61 and corresponding provisions of Utah rules will be met for the total quantities of concentrated depleted uranium and other wastes, including wastes already disposed of and the quantities of concentrated depleted uranium the facility now proposes to dispose. Any such performance assessment shall be revised as needed to reflect ongoing guidance and rulemaking from NRC. For purposes of this performance assessment, the compliance period shall be a minimum of 10,000 years. Additional simulations shall be performed for the period where peak dose occurs and the results shall be analyzed qualitatively.

(b) No facility may dispose of significant quantities of concentrated depleted uranium prior to the approval by the Director of the performance assessment required in Subsection R313-25-9(5)(a).

(c) For purposes of this Subsection R313-25-9(5) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

#### **R313-25-10. Institutional Information.**

The institutional information submitted by the applicant shall include:

(1) A certification by the federal or state agency which owns the disposal site that the agency is prepared to accept transfer of the license when the provisions of Section R313-25-17 are met and will assume responsibility for institutional control after site closure and for post-closure observation and maintenance.

(2) Evidence, if the proposed disposal site is on land not owned by the federal or a state government, that arrangements have been made for assumption of ownership in fee by the federal or a state agency.

**R313-25-11. Financial Information.**

This information shall demonstrate that the applicant is financially qualified to carry out the activities for which the license is sought. The information shall meet other financial assurance requirements of Rule R313-25.

**R313-25-12. Requirements for Issuance of a License.**

A license for the receipt, possession, and disposal of waste containing radioactive material will be issued by the Director upon finding that:

- (1) the issuance of the license will not constitute an unreasonable risk to the health and safety of the public;
- (2) the applicant is qualified by reason of training and experience to carry out the described disposal operations in a manner that protects health and minimizes danger to life or property;
- (3) the applicant's proposed disposal site, land disposal facility design, land disposal facility operations, including equipment, facilities, and procedures, disposal site closure, and post-closure institutional control, are adequate to protect the public health and safety as specified in the performance objectives of Section R313-25-20;
- (4) the applicant's proposed disposal site, land disposal facility design, land disposal facility operations, including equipment, facilities, and procedures, disposal site closure, and post-closure institutional control are adequate to protect the public health and safety in accordance with the performance objectives of Section R313-25-21;
- (5) the applicant's proposed land disposal facility operations, including equipment, facilities, and procedures, are adequate to protect the public health and safety in accordance with Rule R313-15;
- (6) the applicant's proposed disposal site, land disposal facility design, land disposal facility operations, disposal site closure, and post-closure institutional control plans are adequate to protect the public health and safety in that they will provide reasonable assurance of the long-term stability of the disposed waste and the disposal site and will eliminate to the extent practicable the need for continued maintenance of the disposal site following closure;
- (7) the applicant's demonstration provides reasonable assurance that the requirements of Rule R313-25 will be met;
- (8) the applicant's proposal for institutional control provides reasonable assurance that control will be provided for the length of time found necessary to ensure the findings in Subsections R313-25-12(3) through (6) and that the institutional control meets the requirements of Section R313-25-29.
- (9) the financial or surety arrangements meet the requirements of Rule R313-25.

**R313-25-13. Conditions of Licenses.**

- (1) A license issued under Rule R313-25, or a right thereunder, may not be transferred, assigned, or disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to a person, unless the Director finds, after securing full information, that the transfer is in accordance with the provisions of the Radiation Control Act and Rules and gives his consent in writing in the form of a license amendment.
- (2) The Director may require the licensee to submit written statements under oath.
- (3) The license will be terminated only on the full implementation of the final closure plan, including post-closure observation and maintenance, as approved by the Director.
- (4) The licensee shall submit to the provisions of the Act now or hereafter in effect, and to all findings and orders of the Director. The terms and conditions of the license are subject to amendment, revision, or modification, by reason of amendments to, or by reason of rules, and orders issued in accordance with the terms of the Act and these rules.
- (5) Persons licensed by the Director pursuant to Rule R313-25 shall confine possession and use of the materials to the locations and purposes authorized in the license.
- (6) The licensee shall not dispose of waste until the Director has inspected the land disposal facility and has found it to conform with the description, design, and construction described in the application for a license.
- (7) The Director may incorporate, by rule or order, into licenses at the time of issuance or thereafter, additional requirements and conditions with respect to the licensee's receipt, possession, and disposal of waste as the Director deems appropriate or necessary in order to:
  - (a) protect health or to minimize danger to life or property;
  - (b) require reports and the keeping of records, and to provide for inspections of licensed activities as the Director deems necessary or appropriate to effectuate the purposes of the Radiation Control Act and Rules.
- (8) The authority to dispose of wastes expires on the expiration date stated in the license. An expiration date on a license applies only to the above ground activities and to the authority to dispose of waste. Failure to renew the license shall not relieve the licensee of responsibility for implementing site closure, post-closure observation, and transfer of the license to the site owner.

**R313-25-14. Application for Renewal or Closure.**

- (1) An application for renewal or an application for closure under Section R313-25-15 shall be filed at least 90 days prior to license expiration.
- (2) Applications for renewal of a license shall be filed in accordance with Sections R313-25-5 and R313-25-7 through 25-11. Applications for closure shall be filed in accordance with Section R313-25-15. Information contained in previous applications, statements, or reports filed with the Director under the license may be incorporated by reference if the references are clear and specific.
- (3) If a licensee has filed an application in proper form for renewal of a license, the license shall not expire unless and until the Director has taken final action to deny application for renewal.

- (4) In evaluating an application for license renewal, the Director will apply the criteria set forth in Section R313-25-12.

**R313-25-15. Contents of Application for Site Closure and Stabilization.**

(1) Prior to final closure of the disposal site, or as otherwise directed by the Director, the licensee shall submit an application to amend the license for closure. This closure application shall include a final revision and specific details of the land disposal facility closure plan included in the original license application submitted and approved under Section R313-25-8(7). The plan shall include the following:

- (a) additional geologic, hydrologic, or other data pertinent to the long-term containment of emplaced wastes obtained during the operational period;
- (b) the results of tests, experiments, or other analyses relating to backfill of excavated areas, closure and sealing, waste migration and interaction with emplacement media, or other tests, experiments, or analyses pertinent to the long-term containment of emplaced waste within the disposal site;
- (c) proposed revision of plans for:
  - (i) decontamination or dismantlement of surface facilities;
  - (ii) backfilling of excavated areas; or
  - (iii) stabilization of the disposal site for post-closure care.
- (d) Significant new information regarding the environmental impact of closure activities and long-term performance of the disposal site.

(2) Upon review and consideration of an application to amend the license for closure submitted in accordance with Subsection R313-25-15(1), the Director shall issue an amendment authorizing closure if there is reasonable assurance that the long-term performance objectives of Rule R313-25 will be met.

**R313-25-16. Post-Closure Observation and Maintenance.**

The licensee shall observe, monitor, and carry out necessary maintenance and repairs at the disposal site until the site closure is complete and the license is transferred by the Director in accordance with Section R313-25-17. The licensee shall remain responsible for the disposal site for an additional five years. The Director may approve closure plans that provide for shorter or longer time periods of post-closure observation and maintenance, if sufficient rationale is developed for the variance.

**R313-25-17. Transfer of License.**

Following closure and the period of post-closure observation and maintenance, the licensee may apply for an amendment to transfer the license to the disposal site owner. The license shall be transferred when the Director finds:

- (1) that the disposal site was closed according to the licensee's approved disposal site closure plan;
- (2) that the licensee has provided reasonable assurance that the performance objectives of Rule R313-25 have been met;
- (3) that funds for care and records required by Subsections R313-25-33(4) and (5) have been transferred to the disposal site owner;
- (4) that the post-closure monitoring program is operational and can be implemented by the disposal site owner; and
- (5) that the Federal or State agency which will assume responsibility for institutional control of the disposal site is prepared to assume responsibility and ensure that the institutional requirements found necessary under Subsection R313-25-12(8) will be met.

**R313-25-18. Termination of License.**

(1) Following the period of institutional control needed to meet the requirements of Section R313-25-12, the licensee may apply for an amendment to terminate the license.

- (2) This application will be reviewed in accordance with the provisions of Section R313-22-32.
- (3) A license shall be terminated only when the Director finds:
  - (a) that the institutional control requirements of Subsection R313-25-12(8) have been met;
  - (b) that additional requirements resulting from new information developed during the institutional control period have been met;
  - (c) that permanent monuments or markers warning against intrusion have been installed; and
  - (d) that records required by Subsections R313-25-33(4) and (5) have been sent to the party responsible for institutional control of the disposal site and a copy has been sent to the Director immediately prior to license termination.

**R313-25-19. General Requirement.**

Land disposal facilities shall be sited, designed, operated, closed, and controlled after closure so that reasonable assurance exists that exposures to individuals do not exceed the limits stated in Sections R313-25-20 and 25-23.

**R313-25-20. Protection of the General Population from Releases of Radioactivity.**

Concentrations of radioactive material which may be released to the general environment in ground water, surface water, air, soil, plants or animals shall not result in an annual dose exceeding an equivalent of 0.25 mSv (0.025 rem) to the whole body, 0.75 mSv (0.075 rem) to the thyroid, and 0.25 mSv (0.025 rem) to any other organ of any member of the public. No greater than 0.04 mSv (0.004 rem) committed effective dose equivalent or total effective dose equivalent to any member of the public shall come from groundwater. Reasonable efforts should be made to maintain releases of radioactivity in effluents to the general environment as low as is reasonably achievable.

**R313-25-21. Protection of Individuals from Inadvertent Intrusion.**

Design, operation, and closure of the land disposal facility shall ensure protection of any individuals inadvertently intruding into the disposal site and occupying the site or contacting the waste after active institutional controls over the disposal site are removed.

**R313-25-22. Protection of Individuals During Operations.**

Operations at the land disposal facility shall be conducted in compliance with the standards for radiation protection set out in Rule R313-15 of these rules, except for release of radioactivity in effluents from the land disposal facility, which shall be governed by Section R313-25-20. Every reasonable effort should be made to maintain radiation exposures as low as is reasonably achievable, ALARA.

**R313-25-23. Stability of the Disposal Site After Closure.**

The disposal facility shall be sited, designed, used, operated, and closed to achieve long-term stability of the disposal site and to eliminate, to the extent practicable, the need for ongoing active maintenance of the disposal site following closure so that only surveillance, monitoring, or minor custodial care are required.

**R313-25-24. Disposal Site Suitability Requirements for Land Disposal - Near-Surface Disposal.**

(1) The primary emphasis in disposal site suitability is given to isolation of wastes and to disposal site features that ensure that the long-term performance objectives are met.

(2) The disposal site shall be capable of being characterized, modeled, analyzed and monitored.

(3) Within the region where the facility is to be located, a disposal site should be selected so that projected population growth and future developments are not likely to affect the ability of the disposal facility to meet the performance objectives of Rule R313-25.

(4) Areas shall be avoided having known natural resources which, if exploited, would result in failure to meet the performance objectives of Rule R313-25.

(5) The disposal site shall be generally well drained and free of areas of flooding or frequent ponding. Waste disposal shall not take place in a 100-year flood plain, coastal high-hazard area or wetland, as defined in Executive Order 11988, "Floodplain Management Guidelines."

(6) Upstream drainage areas shall be minimized to decrease the amount of runoff which could erode or inundate waste disposal units.

(7) The disposal site shall provide sufficient depth to the water table that ground water intrusion, perennial or otherwise, into the waste will not occur. The Director will consider an exception to this requirement to allow disposal below the water table if it can be conclusively shown that disposal site characteristics will result in molecular diffusion being the predominant means of radionuclide movement and the rate of movement will result in the performance objectives being met. In no case will waste disposal be permitted in the zone of fluctuation of the water table.

(8) The hydrogeologic unit used for disposal shall not discharge ground water to the surface within the disposal site.

(9) Areas shall be avoided where tectonic processes such as faulting, folding, seismic activity, vulcanism, or similar phenomena may occur with such frequency and extent to significantly affect the ability of the disposal site to meet the performance objectives of Rule R313-25 or may preclude defensible modeling and prediction of long-term impacts.

(10) Areas shall be avoided where surface geologic processes such as mass wasting, erosion, slumping, landsliding, or weathering occur with sufficient such frequency and extent to significantly affect the ability of the disposal site to meet the performance objectives of Rule R313-25, or may preclude defensible modeling and prediction of long-term impacts.

(11) The disposal site shall not be located where nearby facilities or activities could adversely impact the ability of the site to meet the performance objectives of Rule R313-25 or significantly mask the environmental monitoring program.

**R313-25-25. Disposal Site Design for Near-Surface Land Disposal.**

(1) Site design features shall be directed toward long-term isolation and avoidance of the need for continuing active maintenance after site closure.

(2) The disposal site design and operation shall be compatible with the disposal site closure and stabilization plan and lead to disposal site closure that provides reasonable assurance that the performance objectives will be met.

(3) The disposal site shall be designed to complement and improve, where appropriate, the ability of the disposal site's natural characteristics to assure that the performance objectives will be met.

(4) Covers shall be designed to minimize, to the extent practicable, water infiltration, to direct percolating or surface water away from the disposed waste, and to resist degradation by surface geologic processes and biotic activity.

(5) Surface features shall direct surface water drainage away from disposal units at velocities and gradients which will not result in erosion that will require ongoing active maintenance in the future.

(6) The disposal site shall be designed to minimize to the extent practicable the contact of water with waste during storage, the contact of standing water with waste during disposal, and the contact of percolating or standing water with wastes after disposal.

**R313-25-26. Near Surface Land Disposal Facility Operation and Disposal Site Closure.**

(1) Wastes designated as Class A pursuant to Section R313-15-1009 of these rules shall be segregated from other wastes by placing them in disposal units which are sufficiently separated from disposal units for the other waste classes so that any interaction

between Class A wastes and other wastes will not result in the failure to meet the performance objectives of Rule R313-25. This segregation is not necessary for Class A wastes if they meet the stability requirements of Subsection R313-15-1009(2)(b).

(2) Wastes designated as Class C pursuant to Section R313-15-1009 shall be disposed of so that the top of the waste is a minimum of five meters below the top surface of the cover or shall be disposed of with intruder barriers that are designed to protect against an inadvertent intrusion for at least 500 years.

(3) Except as provided in Subsection R313-25-1(1), only waste classified as Class A, B, or C shall be acceptable for near-surface disposal. Wastes shall be disposed of in accordance with the requirements of Subsections R313-25-26(4) through 11.

(4) Wastes shall be emplaced in a manner that maintains the package integrity during emplacement, minimizes the void spaces between packages, and permits the void spaces to be filled.

(5) Void spaces between waste packages shall be filled with earth or other material to reduce future subsidence within the fill.

(6) Waste shall be placed and covered in a manner that limits the radiation dose rate at the surface of the cover to levels that at a minimum will permit the licensee to comply with all provisions of Sections R313-15-301 and 302 at the time the license is transferred pursuant to Section R313-25-17.

(7) The boundaries and locations of disposal units shall be accurately located and mapped by means of a land survey. Near-surface disposal units shall be marked in such a way that the boundaries of the units can be easily defined. Three permanent survey marker control points, referenced to United States Geological Survey or National Geodetic Survey control stations, shall be established on the site to facilitate surveys. The United States Geological Survey or National Geodetic Survey control stations shall provide horizontal and vertical controls as checked against United States Geological Survey or National Geodetic Survey record files.

(8) A buffer zone of land shall be maintained between any buried waste and the disposal site boundary and beneath the disposed waste. The buffer zone shall be of adequate dimensions to carry out environmental monitoring activities specified in Subsection R313-25-27(4) and take mitigative measures if needed.

(9) Closure and stabilization measures as set forth in the approved site closure plan shall be carried out as the disposal units are filled and covered.

(10) Active waste disposal operations shall not have an adverse effect on completed closure and stabilization measures.

(11) Only wastes containing or contaminated with radioactive material shall be disposed of at the disposal site.

(12) Proposals for disposal of waste that are not generally acceptable for near-surface disposal because the wastes form and disposal methods shall be different and, in general, more stringent than those specified for Class C waste, may be submitted to the Director for approval.

#### **R313-25-27. Environmental Monitoring.**

(1) At the time a license application is submitted, the applicant shall have conducted a preoperational monitoring program to provide basic environmental data on the disposal site characteristics. The applicant shall obtain information about the ecology, meteorology, climate, hydrology, geology, geochemistry, and seismology of the disposal site. For those characteristics that are subject to seasonal variation, data shall cover at least a 12-month period.

(2) During the land disposal facility site construction and operation, the licensee shall maintain an environmental monitoring program. Measurements and observations shall be made and recorded to provide data to evaluate the potential health and environmental impacts during both the construction and the operation of the facility and to enable the evaluation of long-term effects and need for mitigative measures. The monitoring system shall be capable of providing early warning of releases of waste from the disposal site before they leave the site boundary.

(3) After the disposal site is closed, the licensee responsible for post-operational surveillance of the disposal site shall maintain a monitoring system based on the operating history and the closure and stabilization of the disposal site. The monitoring system shall be capable of providing early warning of releases of waste from the disposal site before they leave the site boundary.

(4) The licensee shall have plans for taking corrective measures if the environmental monitoring program detects migration of waste which would indicate that the performance objectives may not be met.

#### **R313-25-28. Alternative Requirements for Design and Operations.**

The Director may, upon request or on the Director's own initiative, authorize provisions other than those set forth in Sections R313-25-25 and 25-27 for the segregation and disposal of waste and for the design and operation of a land disposal facility on a specific basis, if it finds reasonable assurance of compliance with the performance objectives of Rule R313-25.

#### **R313-25-29. Institutional Requirements.**

(1) Land Ownership. Disposal of waste received from other persons may be permitted only on land owned in fee by the Federal or a State government.

(2) Institutional Control. The land owner or custodial agency shall conduct an institutional control program to physically control access to the disposal site following transfer of control of the disposal site from the disposal site operator. The institutional control program shall also include, but not be limited to, conducting an environmental monitoring program at the disposal site, periodic surveillance, minor custodial care, and other equivalents as determined by the Director, and administration of funds to cover the costs for these activities. The period of institutional controls will be determined by the Director, but institutional controls may not be relied upon for more than 100 years following transfer of control of the disposal site to the owner.

**R313-25-30. Applicant Qualifications and Assurances.**

The applicant shall show that it either possesses the necessary funds, or has reasonable assurance of obtaining the necessary funds, or by a combination of the two, to cover the estimated costs of conducting all licensed activities over the planned operating life of the project, including costs of construction and disposal.

**R313-25-31. Funding for Disposal Site Closure and Stabilization.**

(1) The applicant shall provide assurances prior to the commencement of operations, and a licensee shall provide assurances annually, that sufficient funds are or will be available to carry out land disposal facility closure and stabilization, including:

(a) decontamination or dismantlement of land disposal facility structures, and

(b) closure and stabilization of the disposal site so that following transfer of the disposal site to the site owner, the need for ongoing active maintenance is eliminated to the extent practicable and only minor custodial care, surveillance, and monitoring are required. These assurances shall be based on Director approved cost estimates reflecting the Director approved plan for disposal site closure and stabilization. The applicant's or the licensee's cost estimates shall take into account total costs that would be incurred if an independent contractor were hired to perform the closure and stabilization work, in accordance with R313-25-31.5.

(2) In order to avoid unnecessary duplication and expense, the Director will accept financial sureties that have been consolidated with earmarked financial or surety arrangements established to meet requirements of Federal or other State agencies or local governmental bodies for decontamination, closure, and stabilization as to any unlicensed facility. The Director will accept these arrangements only if they are considered adequate to satisfy the requirements of Section R313-25-31 and if they clearly identify the portion of the surety which covers the closure of such unlicensed facility and is committed for use in accomplishing these activities.

(3) The licensee's financial or surety arrangement shall be submitted annually for review by the Director to assure that sufficient funds will be available for completion of the closure plan.

(4) The amount of the licensee's financial or surety arrangement shall change in accordance with changes in the predicted costs of closure and stabilization. Factors affecting closure and stabilization cost estimates include inflation, increases in the amount of disturbed land, changes in engineering plans, closure and stabilization that have already been accomplished, and other conditions affecting costs. The financial or surety arrangement shall be sufficient at all times to cover the costs of closure and stabilization of the disposal units that are expected to be used before the next license renewal.

(5) The financial or surety arrangement shall be written for a specified period of time and shall be automatically renewed unless the person who issues the surety notifies the Director; the beneficiary, the site owner; and the principal, the licensee, not less than 90 days prior to the renewal date of its intention not to renew. In such a situation, the licensee shall submit a replacement surety within 30 days after notification of cancellation. If the licensee fails to provide a replacement surety acceptable to the Director, the beneficiary may collect on the original surety.

(6) Proof of forfeiture shall not be necessary to collect the surety so that, in the event that the licensee could not provide an acceptable replacement surety within the required time, the surety shall be automatically collected prior to its expiration. The conditions described above shall be clearly stated on surety instruments.

(7) Financial or surety arrangements generally acceptable to the Director include surety bonds, cash deposits, certificates of deposit, deposits of government securities, escrow accounts, irrevocable letters or lines of credit, trust funds, and combinations of the above or other types of arrangements as may be approved by the Director. Self-insurance, or an arrangement which essentially constitutes self-insurance, will not satisfy the surety requirement for private sector applicants.

(8) The licensee's financial or surety arrangement shall remain in effect until the closure and stabilization program has been completed and approved by the Director, and the license has been transferred to the site owner.

(9) The financial assurance shall be based on an annual estimate and shall include closure and post-closure costs in all areas subject to the licensed or permitted portions of the facility;

(10) Financial assurance for an unlicensed facility that supports the operation of a licensed or permitted facility shall include the estimated cost of:

(a) the removal of structures;

(b) the testing of structures, roads, and property to ensure no radiological contamination has occurred outside of the licensed area; and

(c) stabilization and water infiltration control;

(11) Financial assurance cost estimates for a single approved waste disposal unit for which the volume of waste already placed and proposed to be placed in the unit within the surety period is less than the full waste capacity of the unit shall reflect the closure and post-closure costs for a waste disposal unit smaller than the approved waste disposal unit, if the unit could be reduced in size, meet closure requirements, and reduce closure costs;

(12) Financial assurance cost estimates for two approved adjacent waste disposal units that have been approved to be combined into a single unit and for which the combined volume of waste already placed and proposed to be placed in the units within the surety period is less than the combined waste capacity for the two separate units shall reflect either two separate waste disposal units or a single combined unit, whichever has the lowest closure and post-closure costs;

(13) The licensee or permittee shall annually propose closure and post-closure costs upon which financial assurance amounts are based, including costs of potential remediation at the licensed or permitted facility and, notwithstanding the obligations described in Subsection R313-25-31(10), any unlicensed facility;

(14) To provide the information in Subsection R313-25-31(13), the licensee or permittee shall provide:

(a) a proposed annual cost estimate using the current edition of RS Means Facilities Construction Cost Data or using a process, including an indirect cost multiplier, previously agreed to between the licensee or permittee and the Director; or

(b)(i) for an initial financial assurance determination and for each financial assurance determination every five years thereafter, a proposed competitive site-specific estimate for closure and post-closure care of the facility at least once every five years; and

(ii) for each year between a financial assurance determination described in Subsection R313-25-31(14)(b)(i), a proposed financial assurance estimate that accounts for current site conditions and that includes an annual inflation adjustment to the financial assurance determination using the Gross Domestic Product Implicit Price Deflator of the Bureau of Economic Analysis, United States Department of Commerce, calculated by dividing the latest annual deflator by the deflator for the previous year; and

(15) The Director shall:

(a) annually review the licensee's or permittee's proposed closure and postclosure estimate; and

(b) approve the estimate if the Director determines that the estimate would be sufficient to provide for closure and post-closure costs.

#### **R313-25-31.5. Calculation of Closure Costs.**

(1) In order to demonstrate the adequacy of closure, stabilization, post-closure, and institutional control funding in compliance with Section 19-3-104 and Subsection R313-25-31(1)(b), the applicant or licensee shall establish the level of costs that an independent contractor would incur by reliance on one of two methods, as follows:

(a) using the current edition of RS Means Facility Construction Cost Data; or

(b) using a competitive site-specific estimate.

(2) Any proposed competitive site-specific estimate submitted pursuant to Subsection R313-25-31(14)(b)(i) shall:

(a) be certified by a professional engineer or geologist licensed in Utah; and

(b) include sufficient detail so that the Director can determine that the cost estimate would be sufficient to provide for closure, post closure costs, and institutional control costs in compliance with Chapter 19-3 and Section R313-25-31.

~~(3) In the event that an applicant or licensee submits a competitive site specific estimate, the Director may engage the services of a contractor or cost estimator who is familiar with competitive, site specific construction costs in order to assist the Director in his review. In that event, the applicant or licensee shall reimburse the costs of the contractor or cost estimator's review.~~

~~(4)~~(3) In the intervening four years following Director approval of a competitive site-specific estimate, a proposed cost estimate that accounts for current site conditions or changes to site conditions under Subsection R313-25-31(14)(b)(ii) shall be submitted by using either:

(a) the current edition of RS Means Facility Construction Cost Data; or

(b) the cost estimating rationale developed in the approved competitive site-specific estimate.

#### **R313-25-32. Financial Assurances for Institutional Controls.**

(1) Prior to the issuance of the license, the applicant shall provide for Director approval, a binding arrangement, between the applicant and the disposal site owner that ensures that sufficient funds will be available to cover the costs of monitoring and required maintenance during the institutional control period. The binding arrangement shall be reviewed annually by the Director to ensure that changes in inflation, technology, and disposal facility operations are reflected in the arrangements.

(2) Subsequent changes to the binding arrangement specified in Subsection R313-25-32(1) relevant to institutional control shall be submitted to the Director for prior approval.

#### **R313-25-33. Maintenance of Records, Reports, and Transfers.**

(1) Licensees shall maintain records and make reports in connection with the licensed activities as may be required by the conditions of the license or by the rules and orders of the Director.

(2) Records which are required by these rules or by license conditions shall be maintained for a period specified by the appropriate rules or by license condition. If a retention period is not otherwise specified, these records shall be maintained and transferred to the officials specified in Subsection R313-25-33(4) as a condition of license termination unless the Director otherwise authorizes their disposition.

(3) Records which shall be maintained pursuant to Rule R313-25 may be the original or a reproduced copy or microfilm if this reproduced copy or microfilm is capable of producing copy that is clear and legible at the end of the required retention period.

(4) Notwithstanding Subsections R313-25-33(1) through (3), copies of records of the location and the quantity of wastes contained in the disposal site shall be transferred upon license termination to the chief executive of the nearest municipality, the chief executive of the county in which the facility is located, the county zoning board or land development and planning agency, the State Governor, and other state, local, and federal governmental agencies as designated by the Director at the time of license termination.

(5) Following receipt and acceptance of a shipment of waste, the licensee shall record the date that the shipment is received at the disposal facility, the date of disposal of the waste, a traceable shipment manifest number, a description of any engineered barrier or structural overpack provided for disposal of the waste, the location of disposal at the disposal site, the condition of the waste packages as received, discrepancies between the materials listed on the manifest and those received, the volume of any pallets, bracing, or other shipping or onsite generated materials that are contaminated, and are disposed of as contaminated or suspect materials, and evidence of leakage or damaged packages or radiation or contamination levels in excess of limits specified in U.S. Department of Transportation and Director regulations or rules. The licensee shall briefly describe repackaging operations of the waste packages included in the shipment, plus other information required by the Director as a license condition.

(6) Licensees authorized to dispose of waste received from other persons shall file a copy of their financial report or a certified financial statement annually with the Director in order to update the information base for determining financial qualifications.

(7)(a) Licensees authorized to dispose of waste received from other persons, pursuant to Rule R313-25, shall submit annual reports to the Director. Reports shall be submitted by the end of the first calendar quarter of each year for the preceding year.

(b) The reports shall include:

- (i) specification of the quantity of each of the principal contaminants released to unrestricted areas in liquid and in airborne effluents during the preceding year;
  - (ii) the results of the environmental monitoring program;
  - (iii) a summary of licensee disposal unit survey and maintenance activities;
  - (iv) a summary, by waste class, of activities and quantities of radionuclides disposed of;
  - (v) instances in which observed site characteristics were significantly different from those described in the application for a license; and
  - (vi) other information the Director may require.
- (c) If the quantities of waste released during the reporting period, monitoring results, or maintenance performed are significantly different from those predicted, the report shall cover this specifically.

(8) In addition to the other requirements in Section R313-25-33, the licensee shall store, or have stored, manifest and other information pertaining to receipt and disposal of radioactive waste in an electronic recordkeeping system.

(a) The manifest information that must be electronically stored is:

- (i) that required in Appendix G of 10 CFR 20.1001 to 20.2402, (2006), which is incorporated into these rules by reference, with the exception of shipper and carrier telephone numbers and shipper and consignee certifications; and
  - (ii) that information required in Subsection R313-25-33(5).
- (b) As specified in facility license conditions, the licensee shall report the stored information, or subsets of this information, on a computer-readable medium.

**R313-25-34. Tests on Land Disposal Facilities.**

Licensees shall perform, or permit the Director to perform, any tests the Director deems appropriate or necessary for the administration of the rules in Rule R313-25, including, but not limited to, tests of:

- (1) wastes;
- (2) facilities used for the receipt, storage, treatment, handling or disposal of wastes;
- (3) radiation detection and monitoring instruments; or
- (4) other equipment and devices used in connection with the receipt, possession, handling, treatment, storage, or disposal of waste.

**R313-25-35. Director Inspections of Land Disposal Facilities.**

(1) Licensees shall afford to the Director, at reasonable times, opportunity to inspect waste not yet disposed of, and the premises, equipment, operations, and facilities in which wastes are received, possessed, handled, treated, stored, or disposed of.

(2) Licensees shall make available to the Director for inspection, upon reasonable notice, records kept by it pursuant to these rules. Authorized representatives of the Director may copy and take away copies of, for the Director's use, any records required to be kept pursuant to Rule R313-25.

**KEY: radiation, radioactive waste disposal, depleted uranium**

**Date of Enactment or Last Substantive Amendment: ~~October 21, 2014~~ February 8, 2018**

**Notice of Continuation: July 1, 2016**

**Authorizing, and Implemented or Interpreted Law: 19-3-104; 19-6-104(1); 19-6-107**

# WASTE MANAGEMENT AND RADIATION CONTROL BOARD

## Executive Summary EnergySolutions, LLC February 8, 2018

<b>What is the issue before the Board?</b>	This is a Stipulation and Consent Order (SCO) to resolve Notice of Violation No. 2017-1706012 issued to EnergySolutions on July 17, 2017, for a self-identified violation of Condition 5.a of Attachment II-10 of the state-issued Part B Hazardous Waste Permit.
<b>What is the historical background or context for this issue?</b>	<p>On July 26, 2016, EnergySolutions notified the Director that for the previous two years, a synthetic polymer solution was not applied as a dust suppressant for exposed areas of waste on a bi-weekly basis during the required timeframes, beginning on May 31st and ending on October 1<sup>st</sup>, for each of those years. This resulted in 11 individual occurrences where application of dust suppressant was not applied.</p> <p>The violation has been corrected. The SCO includes a penalty of \$50,689.00.</p>
<b>What is the governing statutory or regulatory citation?</b>	19-6-104(1)(f) of the Utah Solid and Hazardous Waste Act requires the Board to review settlements negotiated by the Director in accordance with Subsection 19-6-107(3)(a) that require a civil penalty of \$25,000 or more.
<b>Is Board action required?</b>	Yes, this is an action item before the Board. The public comment period for this SCO began on December 27, 2017 and ended on January 29, 2018. No comments were received.
<b>What is the Division Director's recommendation?</b>	The Director recommends approval of the proposed SCO.
<b>Where can more information be obtained?</b>	<p>For technical questions, please contact Otis Willoughby at (801) 536- 0220. For legal questions, please contact Bret Randall at (801) 536-0284.</p> <p><b>The Proposed Stipulation and Consent Order and supporting documentation was provided in the January 11, 2018 Board packet.</b></p>