

John Hultquist - Re: eRules 2--Nonsubstantive Change Review Requested for No. 34963 for the 07/15/2011 Bulletin

From: Hunter Finch
To: Hultquist, John; Rules, Administrative
Date: 7/13/2011 8:02 AM
Subject: Re: eRules 2--Nonsubstantive Change Review Requested for No. 34963 for the 07/15/2011 Bulletin

DAR: Agency staff have correctly determined this rule amendment should be recorded as a nonsubstantive change from Environmental Quality.

W. Hunter Finch, M.Ed., MSW, LCSW
Budget and Policy Analyst
Regulatory Law Analyst

Governor's Office of Planning & Budget
Utah State Capitol
350 N. State Street #150
Salt Lake City, Utah 84114
Phone# 801-538-1553
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>>> <rules@utah.gov> 7/12/2011 6:08 PM >>>

A nonsubstantive rule change has been submitted that requires the Governor's Office to review and verify that the wording changes do not substantively alter the meaning of the rule.

DAR No. 34963
Department: Environmental Quality
Agency: Radiation Control
Code Ref. No.: R313-25-8
Title: Technical Analyses
Filing Type: Nonsubstantive Change

You may review this rule by visiting: <http://erules.rules.utah.gov/erules/secure/loginAuthorize.action?emailUrlPassing&ruleId=151220>

The rule text can be viewed by clicking the "Rule Text" button near the bottom of the form. Please reply to this e-mail with the results of the review.

Thank you!
Division of Administrative Rules
rules@utah.gov
801-538-3218

NOTICE OF NONSUBSTANTIVE RULE

Agency Information

1. Agency: Environmental Quality - Radiation Control
 Room no.: Third Floor
 Building:
 Street address 1: 195 N 1950 W
 Street address 2:
 City, state, zip: SALT LAKE CITY UT 84116-3085
 Mailing address 1: PO BOX 144850
 Mailing address 2:
 City, state, zip: SALT LAKE CITY UT 84114-4850

Contact person(s):

Name:	Phone:	Fax:	E-mail:
John Hultquist	801-536-4623	801-536-4250	jhultquist@utah.gov

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Information

DAR file no: 34963 Date filed: 06/23/2011 01:47 PM
 State Admin Rule Filing Key: 151220
 Utah Admin. Code ref. (R no.): R 313 - 25 - 8
 Changed to Admin. Code ref. (R no.): - -

Title

2. Title of rule or section (catchline):
 Technical Analyses

Rule Change Purpose

3. Purpose of or reason for the nonsubstantive change:

The purpose of the nonsubstantive change is to correct a rule reference within a rule. Specifically, in Subsection R313-25-8(2) the reference to Subsection R313-28-8(1) should read Subsection R313-25-8(1).

Response Information

4. This change is a response to comments by the Administrative Rules Review Committee.
 No

Rule Change Summary

5. Summary of the nonsubstantive change:

The rule cited is a typographical error, because Rule R313-28 is regarding the use of x-rays in the healing arts, which has nothing to do with site-specific performance assessments. The original intent was to reference the rule above in this specific sentence regarding a site-specific performance assessment. In addition, there is no Section R313-28-8, therefore when this rule was previously amended it was simply an typographical error and is referring to Subsection R313-25-8(1) and the site-specific performance assessment rule.

Incorporated Materials

6. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page): Publisher:

	Date Issued: Issue, or version: ISBN Number: ISSN Number: Cost of Incorporated Reference: Adds, updates, removes:
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Indexing Information

- 7. Indexing information - keywords (maximum of four, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
 - radiation
 - depleted uranium
 - radioactive waste disposal

File Information

- 8. Attach an RTF document containing the text of this rule change (filename):
 - There is a document associated with this rule filing.

To the Agency

A nonsubstantive change becomes effective on the date the Division of Administrative Rules makes the change to the rule in the Utah Administrative Code (see Section R15-4-6).

Agency Authorization

Agency head or designee, and title: Rusty Lundberg Director Date (mm/dd/yyyy): 06/16/2011

R313. Environmental Quality, Radiation Control.

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

R313-25-8. Technical Analyses.

(1) The licensee or applicant shall conduct a site-specific performance assessment and receive Executive Secretary 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 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 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 R313-~~25~~25-8(1) shall notify the Executive Secretary 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 Executive Secretary has approved the information submitted pursuant to R313-25-8(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 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 R313-25-19.

(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 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 R313-25-8(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 Executive Secretary'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 Executive Secretary of the performance assessment required in R313-25-8(5)(a).

(c) For purposes of this R313-25-8(5) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

KEY: radiation, radioactive waste disposal, depleted uranium

Date of Enactment or Last Substantive Amendment: April 4, 2011

Notice of Continuation: October 5, 2006

Authorizing, and Implemented or Interpreted Law: 19-3-104; 19-3-108

!-dar--

From: <rules@utah.gov>
To: <rules@utah.gov>, <khansen@utah.gov>, <jhultquist@utah.gov>, <mbroschi@u...>
Date: 4/4/2011 7:48 AM
Subject: eRules 2--Notice of Effective Date Submitted: No. 34240

NOTICE OF EFFECTIVE DATE

In accordance with UT Code Section 63G-3-301 and Rule R15-4, an effective date has been submitted for the following administrative rule:

DAR No. 34240

Department: Environmental Quality

Agency: Radiation Control

Code Ref. No.: R313-25-8

Title: Technical Analyses

Filing Type: Change in Proposed Rule

Effective Date: 04/04/2011

Available at: <http://erules.rules.utah.gov/erules/secure/loginAuthorize.action?emailUriPassing&ruleId=150619>

Thank you!
Division of Administrative Rules
rules@utah.gov
801-538-3218

 	
eRules: Online Rule Filing Application	
<p>ATTENTION: Do not open eRules in more than one browser window at a time. eRules is available 24 hours a day, 7 days a week. Division staff are available during regular business hours -- 7 a.m. to 6 p.m., Monday through Thursday -- to respond to questions or problems. If you must file on the filing deadline, please file well before 6 p.m. If you have questions about eRules or the rulemaking process, please call: Mike Broschinsky: 801-538-3003, Nancy Lancaster: 801-538-3218, or Ken Hansen: 801-538-3777.</p>	
Proposed Rule Types	NOTICE OF EFFECTIVE DATA SUBMITTED
Change in Proposed Rule (CPR)	You have submitted your notice of effective date. Each notice of effective date you submit will generate a separate E-mail message confirming that the filing has been received. If you DO NOT receive an E-mail confirmation within the next 30 minutes, please contact Mike Broschinsky (801-538-3003 or mbroschi@utah.gov) or Nancy Lancaster (801-538-3218 or nllancaster@utah.gov).
Nonsubstantive Change	
Emergency	We recommend that you print this page for your records.
Five-year Review	Please click on the "Continue" button at the bottom of this screen to return to the agency filing list. On this list, you should see that the "Eff. Date" link is now gone.
Five-Year Review Extension	
Public Notice	** Do NOT use the browser's BACK button to modify the form or to complete another form. **
Help	<input type="button" value="Continue"/>
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**Environmental Quality, Radiation
Control
R313-25-8
Technical Analyses**

NOTICE OF CHANGE IN PROPOSED RULE

DAR FILE NO.: 34240

FILED: 02/15/2011

RULE ANALYSIS

PURPOSE OF THE RULE OR REASON FOR THE CHANGE: The purpose of this change in proposed rule is to further clarify when a site-specific performance assessment is required to be submitted to the Executive Secretary for approval regarding radioactive waste receipt and disposal based on the incorporation of comments received during the public comment period and approval of the proposed changes during the February 2011 Radiation Control Board meeting.

SUMMARY OF THE RULE OR CHANGE: Subsection R313-25-8(1)(a) adds language that clarifies when a performance assessment would be required by stating the waste was not part of the development of the limits on Class A waste and not included in the Draft Environmental Impact Statement prepared by the U.S. Nuclear Regulatory Commission for the development of Federal Rule 10 CFR 61. "Licensing Requirements for Land Disposal of Radioactive Waste." Item 1a of the proposed rule becomes item 1(b), and item 1(b) becomes item 1(c). In addition, item 1(d) is added to include a condition for waste that would result in an unanalyzed condition not considered in Rule R313-25 "License Requirements for Land Disposal of Radioactive Waste - General Provisions." Additionally, the words "the development of 10 CFR 61.55" was removed from 1(d). And lastly, the phrase "and changing lake levels" was removed from Subsection R313-25-8(4)(a). (DAR NOTE: This change in proposed rule has been filed to make additional changes to a proposed amendment that was published in the December 1, 2010, issue of the Utah State Bulletin, on page 48. Underlining in the rule below indicates text that has been added since the publication of the proposed rule mentioned above; strike-out indicates text that has been deleted. You must view the change in proposed rule and the proposed amendment together to understand all of the changes that will be enforceable should the agency make this rule effective.)

STATUTORY OR CONSTITUTIONAL AUTHORIZATION FOR THIS RULE: Subsection 19-3-104(4)

ANTICIPATED COST OR SAVINGS TO:

♦ **THE STATE BUDGET:** The State of Utah receives fees from licensees that dispose of radioactive waste under Section 19-3-106. Currently, EnergySolutions, LLC is the

only radioactive waste disposal facility that accepts and disposes of radioactive waste. If this rule is promulgated, certain wastes may not be accepted at the facility until it has completed a site-specific performance assessment and it is approved by the Executive Secretary. The financial impacts on waste fees received by the State of Utah are difficult to specify because the impact depends on the following information that is not known at this time: when a site-specific performance assessment will be submitted and when it will be approved; when the rule takes effect it may cause waste receipts to be delayed; or whether there are competitors for the waste such that EnergySolutions could lose receipts altogether.

♦ **LOCAL GOVERNMENTS:** Tooele County collects impact fees from waste facilities, including EnergySolutions. Tooele County's budget is therefore likely to be affected. Because of the reasons described above, the specific impact cannot be known at this time. However, the proposed change will not impact wastes that are currently approved for disposal and for which disposal fees are paid.

♦ **SMALL BUSINESSES:** No small business in Utah will be directly impacted. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on small businesses.

♦ **PERSONS OTHER THAN SMALL BUSINESSES, BUSINESSES, OR LOCAL GOVERNMENTAL ENTITIES:** The Board is not aware of any direct impact on other entities. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on other persons.

COMPLIANCE COSTS FOR AFFECTED PERSONS: A radioactive waste disposal facility may have to incur the cost of preparing a site-specific performance assessment under this rule, and may also bear the cost of the Division of Radiation Control's review of that performance assessment. The cost of a performance assessment is likely to be over \$1,000,000 initially, however, the licensee has initiated a performance assessment prior to this rule change and therefore, depending on the waste stream, may only have to modify a previous performance assessment and therefore, costs could be substantially lower.

COMMENTS BY THE DEPARTMENT HEAD ON THE FISCAL IMPACT THE RULE MAY HAVE ON BUSINESSES: If the rule is promulgated, one Utah business - EnergySolutions, LLC - may be unable to accept certain wastes until it has submitted a site-specific performance assessment and the performance assessment has been approved. The impact of this rule is hard to ascertain, because the Division of Radiation Control does not know when EnergySolutions will submit a performance assessment and when it will be approved, when EnergySolutions would otherwise have received certain wastes that would require them to prepare and submit a performance assessment, and whether or not future waste shipments will require a site-

specific performance assessment prior to receipt. However, if a performance assessment is required, EnergySolutions will bear the cost of carrying out, preparing, and submitting the performance assessment which could be substantial.

THE FULL TEXT OF THIS RULE MAY BE INSPECTED, DURING REGULAR BUSINESS HOURS, AT:
 ENVIRONMENTAL QUALITY
 RADIATION CONTROL
 ROOM THIRD FLOOR
 195 N 1950 W
 SALT LAKE CITY, UT 84116-3085
 or at the Division of Administrative Rules.

DIRECT QUESTIONS REGARDING THIS RULE TO:

♦ Rusty Lundberg by phone at 801-536-4257, by FAX at 801-533-4097, or by Internet E-mail at rlundberg@utah.gov

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

THIS RULE MAY BECOME EFFECTIVE ON: 03/31/2011

AUTHORIZED BY: Rusty Lundberg, Director

R313. Environmental Quality, Radiation Control.

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

R313-25-8. Technical Analyses.

(1) The licensee or applicant shall conduct a site-specific performance assessment and receive Executive Secretary 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 R313-25-19 during the time period at which peak dose would occur, or~~

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

~~(e)d) the disposal of the waste would result in an unanalyzed condition not considered in [the development of 10 CFR 61.55] 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 R313-28-8(1) shall notify the Executive Secretary 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 Executive Secretary has approved the information submitted pursuant to R313-25-8(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 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~~[-and changing lake levels]~~. 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 R313-25-19.

(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 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 R313-25-8(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 Executive Secretary'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 Executive Secretary of the performance assessment required in R313-25-8(5)(a).

(c) For purposes of this R313-25-8(5) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

**SUMMARY OF PUBLIC COMMENTS & RESPONSE TO COMMENTS
PROPOSED RULE CHANGES**

Rule R313-25-8 Technical Analysis - Performance Assessment

February 1, 2011

Introduction

On November 15, 2010, the Radiation Control Board approved the Division of Radiation Control (DRC) to file with the Division of Administrative Rules proposed rule changes to R313-25-8 *Technical Analysis - License Requirements for Land Disposal of Radioactive Waste - General Provisions*. The proposed rule was published in the December 1, 2010 edition of the Utah Bulletin initiating a public comment period. The comment period ended on January 4, 2011.

Written comments received during the public comment period were reviewed and were determined to be either related or unrelated to the proposed rule. In all, nine commenters submitted comments. Comments ranged from a single issue to as many as eight separate issues. Each separate comment (fourteen in all) was determined to be either related or unrelated to the applicable regulatory issue regarding the proposed rule changes. For comments judged to be applicable to the proposed rule, a response was prepared. The responses are presented in Attachment A. The change in proposed rule is presented in Attachment B, and the received comments are in Attachment C. Comments received that were unrelated to the proposed rule but involve public policy or outside the scope of the proposed rule are summarized in the following table:

<u>Unrelated Comment Topic</u>	<u>Number of Comments Received</u>
Blending/mixing B and C waste with A	2
Expansion/Enlargement	1
Long term custodial responsibility of DU or deep burial	1
Wait for federal government to revise BTP on blending/unique waste streams	1
Testing insects, birds and animals as part of PA	1
Temperature monitoring of buried waste containers/embankment stability	1
Barrel/container integrity/corrosive environment	1
Employee tracking for any medical issues caused by Clive leakage	1
Why barrels are called DU	1
Current Regulations are sufficient to protect public	1

Summary

The comments related to the proposed rule specifically dealt with adding or deleting language for clarity as to when a performance assessment would be required, and compatibility with existing Federal Rule. The pertinent comments are summarized below.

EnergySolutions (ES) proposed additional language to the rule that would better clarify when a performance assessment would be required with respect to the *Draft Environmental Impact Statement on 10 CFR Part 61 "Licensing Requirements for Land Disposal of Radioactive Waste*, (NUREG 0782) September 1981. Furthermore, ES commented that the 60 days prior to the anticipated acceptance of the waste was not necessary and irrelevant based on condition (3) that requires approval by the Executive Secretary prior to accepting the waste. Also, ES proposed the deletion of 1(c) "*the disposal of the waste would result in an unanalyzed condition not considered in the development of 10 CFR 61.55.*" They indicate that Part 61 EIS is a more specific reference to define what has not been analyzed and is more rigorous and sufficient in identifying wastes that require a site-specific analysis. Finally, ES proposed the following language be deleted from 4(a) "and changing lake levels" and from 4(d) "and the effects of changing lake levels." Reasoning for the deletion is that changing lake level cannot be a pathway and 4(a) already includes air, soil, groundwater, and surface water exposure pathways.

HEALUtah proposed additional language. Specifically HEALUtah proposed 1(d): "*for any other reason, the disposal of the waste would result in an unanalyzed condition.*" Heal indicates that this additional language would ensure that unique waste streams and other physical facility changes will be analyzed in required performance assessments. In addition, Heal mentions that this language was in an earlier draft rule proposal.

The Nuclear Regulatory Commission (NRC) indicated based on their review of the proposed regulation and without other significant changes, the proposed rule would meet the compatibility and health and safety categories established in the Office of Federal and State Materials and Environmental Management Programs (FSME) procedure SA-200. However, the NRC clarified that under current procedures, the determination may only be made based on a review of the final Utah regulations.

Fourteen specific comments were received during the comment period. Eleven comments were unrelated to the context of the proposed rule and basically were comments regarding waste blending, disposal of Depleted Uranium (DU), expansion or enlargement, and contents of a performance assessment. Three comments were related to the proposed rule and the DRC provides a response to those comments in Attachment A. below.

In addition, the DRC has determined an error was found in the proposed rule documents that were posted on the DRC's web page and provided in the November Radiation Control Board packet. Specifically, the last 4 items (a, b, c, and d) were brought forward into the proposed rule change from chapter R313-25-17. The proposed rule change R313-25-8 submitted to the Division of Administrative Rules is correct and does not contain the last four items found on the other documents. In as much the change in proposed rule in Attachment B does not contain those items found in the other documents.

ATTACHMENT A

RESPONSES TO COMMENTS

The DRC's responses to the comments that were deemed related are provided below.

1. EnergySolutions (ES) proposed additional language to the rule that would better clarify when a performance assessment would be required with respect to the *Draft Environmental Impact Statement on 10 CFR Part 61 "Licensing Requirements for Land Disposal of Radioactive Waste, (NUREG 0782) September 1981*. Furthermore, ES commented that the 60 days prior to the anticipated acceptance of the waste was not necessary and irrelevant based on condition (3) that requires approval by the Executive Secretary prior to accepting the waste. Also, ES proposed the deletion of 1(c) "the disposal of the waste would result in an unanalyzed condition not considered in the development of 10 CFR 61.55. They indicate that the Part 61 EIS is a more specific reference to define what has not been analyzed and is more rigorous and sufficient in identifying wastes that require a site-specific analysis. Finally, ES proposed the following language be deleted from 4(a) "and changing lake levels" and from 4(d) "and the effects of changing lake levels." Reasoning for the deletion is that changing lake level cannot be a pathway and 4(a) already includes air, soil, groundwater, and surface water exposure pathways.

Response

The Division agrees that adding language regarding the draft EIS is more specific in defining what has been or what has not been analyzed. The DRC concurs with the additional language to 1(a). The DRC understands that ES requests item 1(a) take the place of 1(c). The DRC has evaluated this request and does not agree with the removing 1(c) from the proposed rule. In addition, the Division based on its evaluation of the comments, will change the language to 1(c) for clarity of when an unanalyzed condition would be required with respect to State rule R313-25 Land Disposal of Radioactive Waste. Furthermore, the DRC moves 1(c) to 1(d) in the proposed rule.

In regards to the removal of the 60 day timeframe, the DRC disagrees with the comment that the 60 day notification is irrelevant based on condition 3. The 60 day requirement does matter in regards to when a submission is provided to the Executive Secretary for reviewing a previously approved site specific Performance Assessment (PA). Condition 2 of the proposed rule is to allow the DRC to evaluate the radioactive waste proposed and the previous PA to confirm the PA addressed the performance requirements of the landfill. This is a quality assurance measure regarding future waste and previous site specific PA's. The proposed rule does not mean the review by the DRC or Executive Secretary will be completed in that 60 day timeframe.

In regards to the removal of the phrase “and changing lake levels” in condition 4(a) and 4(d), the DRC agrees that specific language in 4(a) deals with pathways in which receptors may receive a dose from the radioactive material. Surface water is already listed as a potential pathway; therefore, the DRC concurs that the phrase can be removed from condition 4(a). However, with respect to 4(d), the DRC recommends that the phrase remain in the condition. It is appropriate to analyze or consider this scenario with respect to long term stability. The commenter is correct in indicating that it may not necessarily be relevant to a performance period. However, it may be relevant to the performance period; therefore, it allows for the assessment of such scenario when applicable.

2. HEALUtah proposed additional language be added as 1(d): *“for any other reason, the disposal of the waste would result in an unanalyzed condition.”* Heal indicates that the additional language would ensure that unique waste streams and other physical facility changes will be analyzed in required performance assessments. In addition, Heal mentions that this language was in an earlier draft rule proposal.

Response

The DRC realizes this statement is subjective and could require additional costs to a licensee based on Executive Secretary discretion. However, unforeseen waste streams could be captured by this language along with any future site physical changes. To ensure waste disposal activities are protective of human health and the environment in the future, the DRC believes it is reasonable to insert this language into the proposed rule with added language that specifies the unanalyzed conditions were not considered in State rule R313-25 Land Disposal of Radioactive Waste. The revised language becomes 1(d) in the proposed rule.

3. Nuclear Regulatory Commission (NRC) indicated based on their review of the proposed regulation and without other significant changes, they would meet the compatibility and health and safety categories established in the Office of Federal and State Materials and Environmental Management Programs (FSME) procedure SA-200.

Response

The DRC acknowledges the NRC’s response and appreciates the timely review of the proposed rule. The DRC also understands that under current NRC procedures, the findings of compatibility can only be made based on a review of the final Utah regulations. Therefore, the DRC acknowledges the request by the NRC that when the rule is final and published in the state digest, the DRC will submit to the FSME Office the final Utah regulation.

Based on DRC's review of the comments received during the comment period, the following changes to the proposed rule are incorporated. The DRC understands the proposed rule would have to be filed again under a "change in proposed rule". However, a comment period would not be required, only it would require a minimum of 30 days before the rule changes can become final.

ATTACHMENT B

CHANGE IN PROPOSED RULE

- (1) The licensee or applicant shall conduct a site-specific performance assessment and receive Executive Secretary 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 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, and either (b) (c) or (d) below apply:
 - (ba) the waste is likely to result in greater than 10 percent of the dose limits in R313-25-19 during the time period at which peak dose would occur, or
 - (cb) the waste will result in greater than 10 percent of the total site source term over the operational life of the facility, or
 - (de) for any other reason, the disposal of the waste would result in an unanalyzed condition not considered in UAC R313-25. ~~the development of 10 CFR 61.55.~~
- (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 R313-28-8(1) shall notify the Executive Secretary 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 Executive Secretary has approved the information submitted pursuant to R313-25-8(1) or (2).
- (4) The [~~specific technical information~~] licensee or applicant shall also include in the specific technical information the following analyses needed to demonstrate that the performance objectives of 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, ~~and changing lake levels~~. 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 R313-25-19.
 - b) Analyses of the protection of inadvertent intruders shall demonstrate a reasonable assurance 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 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, ~~and~~ 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 R313-25-8(1), [A]ny facility that proposes to land disposal of significant quantities of concentrated depleted uranium (more than one metric ton in total accumulation) after June 1,2010, shall submit for the Executive Secretary's review and approval a performance assessment that demonstrates that the performance standards specified in 10 CFR Part 61 and corresponding provisions of the 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 Executive Secretary of the performance assessment required in R313-25-8[2](5)(a).

(c) For purposes of this R313-25-8[2](5) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

ATTACHMENT C
COMMENTS RECEIVED

DRC-2010-006648



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 22, 2010

Rusty Lundberg, Director
Utah Division of Radiation Control
195 North 1950 West
Salt Lake City, UT 84116

Dear Mr. Lundberg;

We have reviewed the proposed changes to the Utah regulations R313-25-8, received by our office on December 8, 2010. These regulations were reviewed by comparison to the equivalent Nuclear Regulatory Commission (NRC) rules in 10 CFR Part 61. We discussed our review of the regulations with John Hultquist on December 20, 2010.

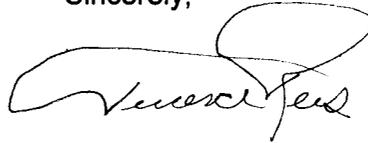
As a result of our review, we have no comments. Please note that we have limited our review to regulations required for compatibility and/or health and safety and the identification of program elements that create conflicts, duplications or gaps in the orderly pattern of regulations on a nationwide basis (See the 1997 Policy Statement on Adequacy and Compatibility of Agreement State Programs). Under our current procedure, a finding that the Utah's regulations meet the compatibility and health and safety categories of the equivalent NRC regulation may only be made based on a review of the final Utah regulations. However, we have determined that if your proposed regulations were adopted, without other significant change, they would meet the compatibility and health and safety categories established in the Office of Federal and State Materials and Environmental Management Programs (FSME) Procedure SA-200.

We request that when the proposed regulations are adopted and published as final regulations, a copy of the "as published" regulations be provided to us for review. As requested in FSME Procedure SA-201, "Review of State Regulatory Requirements," please highlight any final changes, and provide a copy to Division of Materials Safety and State Agreements, FSME.

The State Regulation Status (SRS) Data Sheet summarizes our knowledge of the status of other Utah regulations, as indicated. Please let us know if you note any inaccuracies, or have any comments on the information contained in the SRS Data Sheet. This letter, including the SRS Data Sheet, is posted on the FSME website: <http://nrc-stp.ornl.gov/rulemaking.html>.

If you have any questions regarding the review, the compatibility and health and safety categories, or any of the NRC regulations used in the review, please contact Kathleen Schneider, State Regulation Review Coordinator at 301-415-2320 (kathleen.schneider@nrc.gov) or Dennis Sollenberger at 301-415-2819 (dennis.sollenberger@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Terrence Reis". The signature is fluid and cursive, with a large loop at the end.

Terrence Reis, Deputy Director
Division of Materials Safety and State Agreements
Office of Federal and State Materials
and Environmental Management Programs

Enclosures:
As stated

JIM MATHESON
2ND DISTRICT, UTAH

<http://matheson.house.gov>

**Congress of the United States
House of Representatives**

Washington, DC 20515-4402

January 4, 2011

ENERGY AND COMMERCE
COMMITTEE

SUBCOMMITTEES:

HEALTH

ENERGY AND AIR QUALITY

COMMERCE, TRADE AND
CONSUMER PROTECTION

SCIENCE AND TECHNOLOGY
COMMITTEE

Mr. Rusty Lundberg
Director
Utah Division of Radiation Control
195 North 1950 West
Salt Lake City, Utah, 84116

Dear Mr. Lundberg,

I am sending you my comments regarding the Utah Radiation Control Board's proposed changes to regulations governing radioactive waste performance assessments. It is my understanding that these new rules would require performance assessments to be submitted to Utah regulators for approval prior to the acceptance of waste streams that were not considered in the development of the low-level waste classification system as defined in Federal code at 10 CFR 61.55. Depleted uranium and blended waste are two such waste streams that were not considered in the development of the US low-level waste classification system, and which the U.S. Nuclear Regulatory Commission (NRC) has therefore recently termed "unique wastes."

In its October 13, 2010 memo to staff, the NRC revised its position on blended waste to allow a risk-informed and performance-based mixing of Class B and C waste with Class A waste. However, the NRC recommended that "entities wishing to pursue large scale blending should be encouraged to wait until the revised Branch Technical Position (BTP) is published in a final form." While I believe it is wise for the Board to clarify that all unique waste streams may not be accepted for disposal in the state of Utah until a performance assessment has been submitted and approved by Utah regulators, I also believe that it is important for Utah to wait to approve any such unique waste stream for disposal in Utah until after the NRC has updated its regulations and associated guidance documents pertaining to unique wastes.

With regard to blended wastes specifically, I continue to have concerns about allowing the mixing of Class B and C waste with Class A waste so that the average concentration of the resulting mixture can be designated as Class A waste and therefore sent to Utah in contravention of the Utah ban on hotter Class B and C wastes that was passed in 2005.

That the NRC has designated blended wastes as "unique wastes" indicates to me that they are of a character and composition that is distinct from the kinds of Class A radioactive waste resins that predominate today. Specifically, I am concerned that blended wastes, after mixing, will segregate into different components exhibiting the properties of Class A and Class B/C waste respectively. This concern appears to be reflected in the NRC's October 13 memo, which states that NRC staff should "develop a clear standard for determining homogeneity" of blended wastes.

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SOUTHERN UTAH OFFICE
321 NORTH MALL DRIVE #E101B
SAINT GEORGE, UT 84790
PHONE: (435) 627-0880
FAX: (435) 627-1473

If and when an applicant seeks to dispose of blended waste in Utah, I am hopeful that every possible safety and health concern will be thoroughly addressed. Among the many criteria I hope will be considered as part of the site-specific safety analysis are all possible intruder scenarios, what timeframe is most appropriate for modeling blended waste, and the effects of geologic or climatic changes that could result in higher water levels surrounding the Great Salt Lake. I would also ask that the Board consider whether there are other viable and secure underground storage options for unique waste streams that might avoid many of the outstanding questions currently surrounding disposal of unique wastes like depleted uranium and blended wastes above-ground at Clive. I strongly oppose large-scale blending of low-level radioactive waste at least until the NRC completes its guidance and rulemaking.

Finally, I share the Board's concern that the practice of large-scale waste blending appears to be a back-door means to dispose hotter levels of radioactive waste in a state that has specifically decided not to take these hotter waste streams. As articulated in your "Position Statement on Down-Blending Radioactive Waste," the Board "is opposed to waste blending when the intent is to alter the waste classification for the purposes of disposal site access."

When the state of Utah is already providing nuclear waste disposal services to nearly every state in the nation, and disposes the vast majority of the country's low-level commercial radioactive waste generated every year, I believe it is critically important that Utah's desire to confine this waste stream to only Class A be respected. Specifically, large-scale waste blending operations should not allow wastes that would otherwise be disposed of as Class B or C to be sent to Utah, in apparent violation of Utah's longstanding state ban on these wastes. I therefore hope the Board will continue to consider other measures that will protect Utah's statutory ban on Class B and C wastes.

Thank you for your consideration of my views, and for your dedicated work on this issue. It is important we work together at all levels of government to ensure the public continues to have confidence that we will keep Utahns healthy and safe.

Sincerely,

A handwritten signature in black ink that reads "Jim Matheson". The signature is written in a cursive, flowing style.

JIM MATHESON
Member of Congress

Rusty Lundberg - Proposal

From: "Mark Hays" <archer1955@msn.com>
To: <rlundberg@utah.gov>
Date: 12/1/2010 5:12 PM
Subject: Proposal

To whom it may concern:

Why would you even consider allowing toxic waste deemed dangerous for 500 years to be mixed in with waste that is low-level.

Mixing hotter Class B waste and Class C waste in with the comparatively benign Class A waste does nothing more than an attempt to foist hotter waste on Utah, where Class B and C wastes were banned four years ago.

Energy Solutions seems bent to increase its revenue stream by diversifying the waste stream flowing to its low-level radioactive waste disposal facility in Tooele County.

Please keep this toxic stuff out of Utah and have stricter laws to keep it out.

Thank You,
Sandra Hays

From: Christopher Howden <chowden@gmail.com>
To: <rlundberg@utah.gov>
Date: 11/30/2010 12:42 PM
Subject: Board proposes new radioactive waste regulations for Utah

Dear Sir,
we are opposed to any enlargement of waste into Utah.

sincerely,

Chris & Jacqui Howden
11366 N 6000 W
Highland, UT 84003

Rusty Lundberg - Comment on new regulations for storage at Energy Solutions Clive Facility

From: <norman1122@att.net>
To: <rlundberg@utah.gov>
Date: 1/4/2011 9:58 AM
Subject: Comment on new regulations for storage at Energy Solutions Clive Facility
CC: N Angerhofer <norman1122@att.net>

Dear Mr. Lundberg,

I am a citizen of Utah, but I have no ties to the nuclear industry and no ties to local, state or federal government. As a private citizen, I wish to have my opinions heard on the storage of nuclear waste at the Clive Facility owned and operated by Energy Solutions.

I feel that nuclear waste is a necessary danger of our society. It is a health hazard and should be managed carefully. The following should be done with any nuclear waste being stored in the State of Utah:

1. Nuclear waste which remains highly radioactive over thousands of years should be stored in a more permanent facility than at Clive. Abandoned mines or underground facilities designed for long term storage are better suited to containment of such nuclear waste. As we exited the last Ice Age, the ice melted to the north of us, allowing ancient Lake Bonneville to drain. When the next ice age returns, this northern drain may once again be plugged up with ice, which, together with increased moisture, will allow this ancient lake to refill. This action will likely submerge the Clive facility under water again, allowing the collection of radioactive waste to be dispersed uncontrolled. Hence, long-term waste, present in both depleted Uranium and blended waste, needs a long-term solution, not a temporary storage facility, which will be neglected or forgotten in the distant future as Energy Solutions ceases to exist, or our current society ceases to exist.

2. If it is necessary to store depleted Uranium at this facility, then it should be stored in protective containers which would allow it to be identified and managed for hundreds of years, not buried by dirt and forgotten. In this way, as the need arises, this long-term waste can be reprocessed or relocated with ease. Individual lots must be identifiable and accessible to allow it to be easily relocated or reprocessed.

3. Storage should be provided, not in dirt, but in facilities lined with cement and rock, and protective roofs, to prevent erosion by water and prevent the waste from entering the local water supplies.

4. Blended waste for the purpose of "dilution" is wrong on many levels, and I am totally opposed to any facility in Utah from accepting this waste or generating it. Once waste is blended, it is virtually impossible to reprocess it or manage it in the longer term. It does not become less radioactive, and as the volume of waste goes up, the probability of container breach, through rust, erosion, defective manufacturing, etc. goes up also.

Thank you for consideration of my comments and suggestions.

--Norman Angerhofer
South Jordan, Utah 84095

From: ge chapman <gechapman2@yahoo.com>
To: <rlundberg@utah.gov>
Date: 11/12/2010 4:34 PM
Subject: R313-25-8 performance assessment change comments for December RCB meeting

I would like to reiterate my concerns with regard to R313-25-8 performance assessment changes applicable to the Clive facility.

Although safe dose limits depend on actinides and exposure route and up to date medical science; any radiation escape from Clive storage is bad. I still believe that insects would provide the first warning sign of trouble. I don't understand why a performance assessment doesn't address constant testing of insects, birds and animals on the site for radiation (seagulls eat crickets in the area).

I also don't understand why the storage barrel integrity isn't addressed. The Utah West Desert is a salt desert and in contact with salt, alkaline soils/clay and other ions in the clay, stainless steel barrels deteriorate faster than would otherwise be expected.

Temperature monitoring should be obvious as a warning that buried containers might contain something not expected.

Present and former employee tracking for any medical issues that might be caused by Clive leakage should also be considered.

Remediation with plants seem to be dangerous but it is not explicitly stated.

Fissures that develop due to ground settling from groundwater/aquifer use or an earthquake need to be addressed. What does the company do if the site stability is compromised. What does the company do if the NRC determines that the facility is not safe for storage of a particular item.

The 60 day notification requirement should be 120 days because past history has shown that it takes Utah longer ensure that proposed material meets current Utah/Energy Solutions agreements.

And finally, I don't understand why these barrels are called Depleted Uranium (DU). I realize that the West Desert is littered with Depleted Uranium munitions. The material in the barrels came from reprocessing of nuclear fuel rods which can leave plutonium and many actinides in the barrels. Any other components in the barrel besides Uranium behave differently and can be more dangerous.

George Chapman, 855 e. spring View Dr., SLC 801-867-7071

Rusty Lundberg, Executive Secretary
Utah Radiation Control Board

I have looked over the proposed rule changes and it appears that the purpose of the changes is to protect the public from the perceived hazards of depleted uranium (DU). Specifically, it addresses:

- the increase in radioactivity with time and a fear that the resulting radon would be hazardous.
- the possibility of the Great Salt Lake rising enough to cover the disposal site.

I have tried to evaluate each of these concerns to determine if there is any scientific justification for concern. I conclude that there is no such scientific justification for any concern that DU "waste" in any amount buried at the Clive site could be harmful to public health. The existing regulations are more than adequate to protect the public from any harmful effect of DU "waste". I do not believe that the proposed changes in the regulations are necessary. My reasoning for this evaluation follows.

Increase in Radioactivity with Time

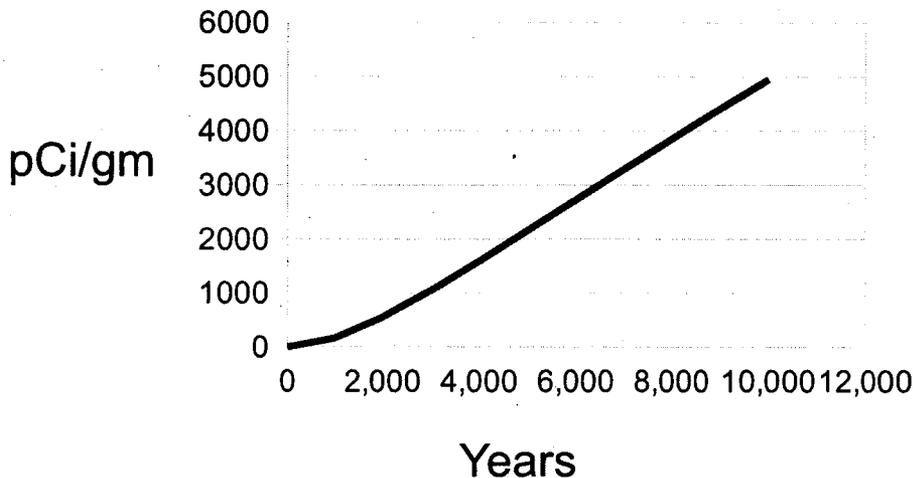
When DU is first produced, it is mostly U-238. The U-238 decays into Th-234 which has a half life of 24 days. In turn Th-234 decays into Pa-234m with a half life of 1.17 min. A short lived decay product will grow in activity at a rate determined by its half life until it reaches the same activity as its parent. In 10 half lives, the daughter's activity will be 99.9% of the parent's activity. So, within 8 months, the radioactivity of the DU will be 3 times its initial radioactivity.

To follow the decay chain further, the Pa-234m decays into U-234 with a half life of 247,000 years so any further ingrowth will be determined by this long half life. In 1,000 years the U-234 activity will increase by only 0.22% of the U-238 activity. However, freshly produced DU already contains some U-234. In natural uranium, the U-234 is in equilibrium with the U-238 (or has the same radioactivity as the U-238). After the separation, Du still contains about 20% of its original radioactivity. So the starting radioactivity of the U-234 is 20% that of the U-238 and in 1,000 years it will be 20.22% of the U-238 activity. The U-234 will continue to increase in radioactivity at this very slow rate.

The decay chain continues with U-234 decaying into Th-230 (half life 80,000 years) which decays into Ra-226 (half life 1600 years) which decays into Rn-222 (half life 3.8 days) and so on for some other short lived daughters.

It is this Rn-222 (radon) which has people so concerned, but it doesn't show up in any significant amount for thousands of years (it will be in equilibrium with the Ra-226). In fact, in 10,000 years, the radon activity will be less than 2% of that of the U-238. This is hardly anything to be concerned about.

The first shipment of DU waste was 77.8% DU and the ingrowth of the Ra-226 is easily calculated. The following graph shows the increase in specific activity of this waste with time.



In 2,000 years the specific activity would reach that of the Vitro tailings which sat in South Salt Lake for many years before being moved to Clive, Utah, adjacent to the current Energy Solutions site. However, the amount of the Vitro tailings was about 3 million tons, about 30 times the amount of the DU waste shipment. In 10,000 years, the specific activity of the DU waste would be about 10 times that of the Vitro tailings and the total radium in the waste would be about 1/3rd that of the Vitro tailings.

While the Vitro tailings sat in South Salt Lake, with no cover, the impact on the residents was very small. We made measurements of the radon in the air on top of the tailings pile and at different distances and found that we could not distinguish the radon coming from the tailings from that coming from the soil of the valley at distances over ½ mile. There is a tremendous amount of radon coming from ordinary soil. The University of Utah attempted to detect radon from the tailings by measuring the radon in the wind from different directions. They found no increase in radon when the wind was coming from the direction of the tailings but a big increase when the wind was coming down out of the canyon.

To put the radon concern in perspective, the shipment of DU "waste" which arrived earlier at Clive contained about 10,500 tons of which 77.8% was DU. That is 8,274 tons of DU. In 10,000 years it will contain Ra-226 at 1.818% the activity of the U-238. Natural uranium, as it occurs in all soil, is in equilibrium with all its decay products and 150.4 tons of this natural uranium would contain the same amount of radium (and radon) as this 10,500 ton shipment of DU "waste" after 10,000 years.

The average uranium content of soil is about 3 ppm (parts per million) and, at this concentration, the top 1 meter (40 inches) of Tooele County soil contains about 40,000 tons of uranium or 266 times as much radon as this first shipment of DU "waste" would have in 10,000 years. This radon from the natural soil is escaping to the atmosphere all the time, but the "waste" would be required to be buried under many feet of radon barrier. It doesn't take a rocket scientist to see that the radon from the "waste", even after 10,000 years, is trivial compared to what nature gives us daily.

Conclusion: There is no reason to be concerned about any radon from the DU "waste" if we understand how small it is compared to natural radon. The answer to overcoming the concern is to educate the public with factual information.

Rising Level of the Great Salt Lake

Any possibility for the Great Salt Lake to rise enough to cover the waste site at Clive, Utah is very remote. We are looking at geological times which would be much more than 10,000 years if such a possibility even exists. Looking for the return of ancient Lake Bonneville is like looking for the return of the ice age. Even if there were a possibility that this could happen, it would be so far beyond our life times that it should be of no concern to us.

If the lake were to rise enough to cover the waste site, any mixing of the waste with the water would be slow and the huge amount of water of such a tremendous lake would provide so much dilution that it would probably never be detected. It is not well known, but a uranium mill is located in the silt under Lake Powell. It would be very difficult to find or even to detect any contamination from it.

Conclusion: There is no reason to be concerned about a rising lake. It would be too far in the future. Even if it were tomorrow, there would be much more to worry about and radioactivity would not even be a minor concern.

I believe that the current regulations are more than sufficient to protect the public interest and there is no need for the proposed changes.

Blaine N. Howard, Health Physicist (retired)
323 Legacy Lane
Grantsville, UT 84029
phone: 435-884-0657

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68 S. Main St, Suite 400 Salt Lake City, Utah 84101 (801) 355-5055

January 4, 2011

Rusty Lundberg, Executive Secretary
Utah Radiation Control Board
195 North 1950 West
Salt Lake City, UT 84116

Sent via email to rlundberg@utah.gov

Dear Mr. Lundberg,

I'm writing you today to provide formal comments on proposed changes to Utah rule R313-25-8, Utah Administrative Code, to incorporate requirements regarding site specific performance assessments associated with the disposal of low-level radioactive waste.

I appreciate the Radiation Control Board's intend to clarify that performance assessments will be required when, "the disposal of the waste would result in an unanalyzed condition not considered in the development of 10 CFR 61.55."

I believe this clarification is important, because it will require that so-called "unique wastes" that were not considered as part of the low-level waste classification system described in 10 CFR 61.55 will be analyzed by Utah regulators before these wastes can be disposed in Utah. Two examples of unique wastes are concentrated depleted uranium and blended wastes. These waste streams can exhibit characteristics far different than the typical Class A wastes already received in the state of Utah.

However, I believe that the citizens of Utah would be well-served by re-inserting language that appeared in an earlier draft of proposed changes to this rule. That language said that a performance assessment would be required when, "for any other reason, the disposal of the waste would

result in an unanalyzed condition.”

There is an important distinction I would like to highlight between two different kinds of unanalyzed conditions:

-Unanalyzed conditions not considered in the development of 10 CFR 61.55 appears to refer to unique wastes such as depleted uranium or blended wastes that were not explicitly considered when the low-level nuclear waste categories were devised

-Any unanalyzed condition, more broadly speaking, can refer to any condition that had not been considered by a licensee in a prior performance assessment, or approved by Utah regulators

Having considered the issue, I believe there are important situations that could arise that would be covered by the latter statement and not covered by the former.

For instance, imagine a hypothetical situation in which Utah regulators notice that soil excavation activities at sites neighboring the EnergySolutions Clive site appear to be creating changes in groundwater velocity under the Clive site.

In this case, Utah regulators may wish to require a revised performance assessment that assumes a faster groundwater velocity. In turn, the faster-than-expected groundwater velocity could have ramifications for both the kinds and amounts of radionuclides EnergySolutions could receive in the future without potentially violating groundwater protection levels.

In short, physical, climatic, and other changes that occur at a nuclear waste disposal facility could result in “unanalyzed conditions” that could warrant a revised performance assessment, prior to the acceptance of additional waste shipments. I believe Utah regulators should have the explicit authority to require such a performance assessment in this and similar cases.

For the above reasons, I believe Utah public would be well-served by adding a condition (1)(d) under R313-25-8 that reads:

(1)(d) for any other reason, the disposal of the waste would result in an unanalyzed condition.

While the proposed rule--with the additional condition noted above--does much to ensure that unique waste streams and other physical facility changes will be analyzed in required performance assessments, I believe this rule is insufficient to prevent blended waste from coming to Utah.

Given that the Radiation Control Board is opposed to waste blending “when the intent is to alter the waste classification for the purposes of disposal site access,” I hope that the Board will entertain proposals for how to work within the Board’s authority to prevent blended wastes from coming to Utah.

I look forward to working with you and the other members of the Radiation Control Board on this important issue in the new year. As always, please feel free to call me if you have any questions, concerns, or other thoughts about these comments or the proposed rule.

Sincerely,

Christopher Thomas
Executive Director
HEAL Utah
801-364-5110



CD11-0091

January 3, 2011

Mr. Rusty Lundberg, Executive Secretary
Utah Radiation Control Board
195 North 1950 West
Salt Lake City, Utah 84116

RECEIVED
JAN 03 2011
DEPARTMENT OF
ENVIRONMENTAL QUALITY

Dear Mr. Lundberg:

Subject: Comments on Recommended Language for a Proposed Rule Requiring
Performance Assessments

EnergySolutions has reviewed the recommended language for a new proposed rule regarding the preparation of performance assessments as contained in the November 9, 2010 report of the Board performance assessment subcommittee. We hereby offer the following comments for your consideration.

EnergySolutions supports the idea of a rule to require a performance assessment to confirm that waste can be safely disposed at licensed sites. We agree with the subcommittee that this approach is far preferable to attempting to regulate disposal at licensed sites of individual waste streams. It is our understanding that the Board wishes by the passage of this rule to ensure that no waste is disposed in Utah that was not considered in the establishment of the limits on Class A waste as defined in the rules of the U.S. Nuclear Regulatory Commission given in 10 CFR 61.55(a) unless a site-specific analysis (or performance assessment) is prepared to confirm compliance with the performance objectives. Given that understanding, we propose that the revisions to R313-25-8 be reworded as follows (added language underlined – deleted language stricken out):

(1) The licensee or applicant shall conduct a site-specific performance assessment and receive Executive Secretary 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 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, and either (b) or (c) below apply.

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

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

~~(e) the disposal of the waste would result in an unanalyzed condition not considered in the development of 10 CFR 61.55.~~

(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 R313-28-8(1) shall notify the Executive Secretary 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 Executive Secretary has approved the information submitted pursuant to R313-25-8(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 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, ~~and changing lake levels.~~ 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 R313-25-19.

(b) Analyses of the protection of inadvertent intruders shall demonstrate a reasonable assurance 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 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, and 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 R313-25-8(1), any facility that proposes to land disposal of significant quantities of concentrated depleted uranium (more than one metric ton in total accumulation) after June 1, 2010, shall submit for the Executive Secretary's review and approval a performance assessment that demonstrates that the performance standards specified in 10 CFR Part 61 and corresponding provisions of the 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 Executive Secretary of the performance assessment required in R313-25-8(5)(a).

(c) For purposes of this R313-25-8(5) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

(a) that the institutional control requirements of R313-25-11(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 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 Executive Secretary immediately prior to license termination.

EnergySolutions believes that relying on a specific reference (the Part 61 EIS) to define what has not been analyzed is a more rigorous and sufficiently restrictive way to identify wastes requiring site-specific analysis. The Part 61 EIS is the proper reference, not the tables found in 10 CFR 61.55, as the EIS contains the expected waste types.

We also believe it is important to change the order of the conditions proposed in the draft rule by first determining whether the waste stream was unanalyzed in the Part 61 EIS. As written, conditions (1)(a) and (1)(b) could be interpreted to require a performance assessment for wastes that meet the proposed thresholds even if the waste is not an otherwise unanalyzed waste stream. We believe the thresholds are an important element of the proposed rule; however, they should only apply for waste streams that already have been determined to be unanalyzed.

EnergySolutions proposes that the time requirement of 60 days be removed from the proposed rule. The 60 day requirement is irrelevant based on conditions found in (3) that require Executive Secretary approval for any wastes contemplated in (1) and (2). If the 60 days means that the review will be completed in that time period, then *EnergySolutions* agrees with the rule as written.

EnergySolutions also proposes that the language "and changing lake levels" be deleted from sections 4(a) and 4(d), but particularly from 4(a). Changing lake levels cannot be considered a "pathway", which is the specific topic of 4(a). In addition, 4(a) already includes air, soil, ground water, and surface water exposure pathways, which are normal exposure routes. With respect to 4(d), the consideration of changing lake levels depends upon the waste to be analyzed and the associated period of performance to be considered. It is not necessarily relevant to a performance period that does not encompass the geologic time span within which the lake levels may or may not rise to the degree that the

site will be affected. To require consideration of rising lake levels in every assessment will be at best a meaningless exercise for shorter performance periods and could add to the cost and time of performing such assessments. In any event, rising lake level potential is but one of dozens of such considerations that could be judged to be important. Any attempt to name all important facets of the technical analyses will not only fall short, but will also impose a level of micro-management of the Executive Secretary's discretion that exceeds that appropriate for a rule. The Executive Secretary will have ample opportunity to review the performance assessment against any criteria that is deemed to be important during the required review.

We thank you for the opportunity to provide these comments in advance of the publication of the proposed rule.

Sincerely,



Daniel B. Shrum
Senior Vice President
Regulatory Affairs

NOTICE OF
PROPOSED RULE AMENDMENT

- The agency identified below in box 1 provides notice of proposed rule change pursuant to Utah Code Section 63G-3-301 and Subsection 53C-1-201(3)(c).
- 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 Division of Administrative Rules.

Agency Information

1. Agency: Environmental Quality - Radiation Control
 Room no.: Third Floor
 Building:
 Street address 1: 195 N 1950 W
 Street address 2:
 City, state, zip: SALT LAKE CITY UT 84116-3085
 Mailing address 1: PO BOX 144850
 Mailing address 2:
 City, state, zip: SALT LAKE CITY UT 84114-4850

Contact person(s):

Name: Phone: Fax: E-mail:

Rusty Lundberg	801-536-4257	801-533-4097	rlundberg@utah.gov
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(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Information

DAR file no: 34240 Date filed: 11/15/2010 04:07 PM
 State Admin Rule Filing Key: 150401
 Utah Admin. Code ref. (R no.): R 313 - 25 - 8
 Changed to Admin. Code ref. (R no.): - -

Title

2. Title of rule or section (catchline):
 Technical Analyses

Notice Type

3. Type of notice: Amendment

Rule Purpose

4. Purpose of the rule or reason for the change:
 The purpose of this amendment is to further clarify when a site-specific performance assessment is required to be submitted to the Executive Secretary for approval regarding radioactive waste receipt and disposal.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.
 No

Rule Summary

6. Summary of the rule or change:

The Utah Radiation Control Board at its 11/10/2010 meeting, voted to amend Section R313-25-8 that requires EnergySolutions or any facility that land disposes of radioactive waste to complete and submit for review and approval a site-specific performance assessment prior to acceptance of radioactive waste that results in greater than

10 percent of the dose limit in Section R313-25-19 during the time period of peak dose or will result in greater than 10 percent of the total site source term over the operational life of the facility or the waste represents an unanalyzed condition not considered in the development of 10 CFR Part 61: Licensing Requirements for Land Disposal of Radioactive Waste.

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

A) State budget:

Affected: Yes

The State of Utah receives fees from licensees that dispose of radioactive waste under Section 19-3-106. Currently, EnergySolutions, LLC is the only radioactive waste disposal facility that accepts and disposes of radioactive waste. If this rule is promulgated, certain wastes may not be accepted at the facility until it has completed a site-specific performance assessment and it is approved by the Executive Secretary. The financial impacts on waste fees received by the State of Utah are difficult to specify because the impact depends on the following information that is not known at this time: when a site-specific performance assessment will be submitted and when it will be approved; when the rule takes effect it may cause waste receipts to be delayed; or whether there are competitors for the waste such that EnergySolutions could lose receipts altogether.

B) Local government:

Affected: Yes

Tooele County collects impact fees from waste facilities, including EnergySolutions. Tooele County's budget is therefore likely to be affected. Because of the reasons described above, the specific impact cannot be known at this time.

C) Small businesses:

Affected: No

("small business" means a business employing fewer than 50 persons)

No small business in Utah will be directly impacted. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on small businesses.

D) Persons other than small businesses, businesses, or local government entities:

Affected: No

("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

The Board is not aware of any direct impact on other entities. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on other persons.

Compliance Cost Information

8. Compliance costs for affected persons:

A radioactive waste disposal facility may have to incur the cost of preparing a site-specific performance assessment under this rule, and may also bear the cost of the Division of Radiation Control's review of that performance assessment. The cost of a performance assessment is likely to be over \$1,000,000 initially, however, the licensee has initiated a performance assessment prior to this rule change and therefore, depending on the waste stream, may only have to modify a previous performance assessment and therefore, costs could be substantially lower.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:

If the rule is promulgated, one Utah business - EnergySolutions, LLC - may be unable to accept certain wastes until it has submitted a site-specific performance assessment and the performance assessment has been approved. The impact of this rule is hard to ascertain, because the Board does not know when EnergySolutions will submit a performance assessment and when it will be approved; when EnergySolutions would otherwise have received certain wastes that would require them to prepare and submit a performance assessment, and whether or not future waste shipments will require a site-specific performance assessment prior to receipt. However, if a performance assessment is required, EnergySolutions will bear the cost of carrying out, preparing, and submitting the performance assessment which could be substantial.

B) Name and title of department head commenting on the fiscal impacts:

Amanda Smith, Executive Director

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.
 State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601(3); Article IV) :
 Subsection 19-3-104(4)

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

Official Title of Materials Incorporated (from title page): Publisher: Date Issued: Issue, or version: ISBN Number: ISSN Number: Cost of Incorporated Reference: Adds, updates, removes:

Comments

12. The public may submit written or oral comments to the agency identified in box 1. (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.)
- A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) : 01/04/2011
 B) A public hearing (optional) will be held:
 On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 01/13/2011
 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 Division 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.

Indexing Information

14. Indexing information - keywords (maximum of four, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
 radiation
 radioactive waste disposal
 depleted uranium

File Information

15. Attach an RTF document containing the text of this rule change (filename):
 There is a document associated with this rule filing.

To the Agency

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 Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:

Rusty Lundberg Director

Date (mm/dd/yyyy): 11/10/2010

R313. Environmental Quality, Radiation Control.

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

R313-25-8. Technical Analyses.

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

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

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

(c) the disposal of the waste would result in an unanalyzed condition not considered in the development of 10 CFR 61.55.

(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 R313-28-8(1) shall notify the Executive Secretary 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 Executive Secretary has approved the information submitted pursuant to R313-25-8(1) or (2).

(4) The ~~specific technical information~~ licensee or applicant shall also include in the specific technical information the following analyses needed to demonstrate that the performance objectives of 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, and changing lake levels. 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 R313-25-19.

(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 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, ~~and~~ 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.

(2)(a) Notwithstanding R313-25-8(1), ~~A~~ 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 Executive Secretary'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 Executive Secretary of the performance assessment required in R313-25-8(2)(a).

(c) For purposes of this R313-25-8(2) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

KEY: radiation, radioactive waste disposal, depleted uranium

Date of Enactment or Last Substantive Amendment: ~~October 13, 2010~~2011

Notice of Continuation: October 5, 2006

Authorizing, and Implemented or Interpreted Law: 19-3-104; 19-3-108

!-dar--

John Hultquist - FYI: Receipt of Utah final regulations regarding changes to Utah Rule R313-25-8, "License Requirements for Land Disposal of Radioactive Waste - Technical Analysis."

From: "Schneider, Kathleen" <Kathleen.Schneider@nrc.gov>
To: "John Hultquist" <JHULTQUIST@utah.gov>, "Rusty Lundberg" <rlundberg@utah.gov>
Date: 3/14/2011 9:29 AM
Subject: FYI: Receipt of Utah final regulations regarding changes to Utah Rule R313-25-8, "License Requirements for Land Disposal of Radioactive Waste - Technical Analysis."
CC: "Meyer, Karen" <Karen.Meyer@nrc.gov>, "Sollenberger, Dennis" <Dennis.Sollenberger@nrc.gov>, "Katanic, Janine" <Janine.Katanic@nrc.gov>, "Erickson, Randy" <Randy.Erickson@nrc.gov>, "White, Duncan" <Duncan.White@nrc.gov>, "Reis, Terrence" <Terrence.Reis@nrc.gov>, "Lewis, Robert" <Robert.Lewis@nrc.gov>, "Camper, Larry" <Larry.Camper@nrc.gov>, "McKenney, Christopher" <Christopher.McKenney@nrc.gov>, "Suber, Gregory" <Gregory.Suber@nrc.gov>, "Kennedy, James" <James.Kennedy@nrc.gov>, "Taylor, Torre" <Torre.Taylor@nrc.gov>, "MSSA_Technical_Asst Resource" <MSSA_Technical_Asst.Resource@nrc.gov>, "Browder, Rachel" <Rachel.Browder@nrc.gov>, "McConnell, Keith" <Keith.McConnell@nrc.gov>, "Persinko, Andrew" <Andrew.Persinko@nrc.gov>, "Felsher, Harry" <Harry.Felsher@nrc.gov>, "Arribas-Colon, Maria" <Maria.Arribas-Colon@nrc.gov>

Dear Mr. Lundberg:

The Office of Federal and State Materials and Environmental Management Programs has received your March 10, 2011 letter transmitting the Utah final regulations regarding changes to Utah Rule R313-25-8, "License Requirements for Land Disposal of Radioactive Waste – Technical Analysis." The review has been assigned to me and it is our goal to complete the review within 60 days.

If you have any further comments or questions, please contact me. Thank you for your attention.

Kathleen Schneider
Sr. Project Manager
State Regulation Review Coordinator
USNRC
Division of Materials Safety and State Agreements (MSSA)
Agreements State Program Branch (ASPB)
kathleen.schneider@nrc.gov
301-415-2320



State of Utah

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF RADIATION CONTROL
Rusty Lundberg
Director



March 10, 2011

Terrance Reis, Deputy Director
Division of Materials Safety and State Agreements
Federal & State Materials & Environmental Management (FSME)
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Mr. Reis:

Enclosed is a copy of the Change In Proposed Rule to Utah Radiation Control Rule, R313-25-8, "License Requirements for Land Disposal of Radioactive Waste – Technical Analysis".

The changes in this revision incorporate comments received from stakeholders during the public comment period beginning December 1, 2010 and ending on January 4, 2011. The Division of Administrative Rules (DAR) has yet to publish the finalized version of R313-25-8 outside of the Utah State Bulletin. However, the final rule may be found in the March 1, 2011, Utah State Bulletin. To access the Utah State Bulletin, go to <http://www.rules.utah.gov/publicat/bulletin/2011/20110301/34240.htm>. The first possible effective is March 31, 2011. When the final rule is published by DAR, the Division of Radiation Control will provide the NRC with a copy of the final rule.

We believe that adoption of this revision satisfies the compatibility and health and safety categories established in the Federal & State Materials & Environmental Management (FSME) Procedure SA-200. If you have any questions, please feel free to contact me at (801) 536-4250 or John Hultquist at (801) 536-4263 or jhultquist@utah.gov.

Sincerely,

Rusty Lundberg, Executive Secretary
Utah Radiation Control Board

cc: Kathleen Schneider, State Regulation Review Coordinator
Division of Materials Safety and State Agreements
Federal & State Materials & Environmental Management (FSME)
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

DAR File No. 34240

This rule was published in the March 1, 2011, issue (Vol. 2011, No. 5) of the Utah State Bulletin.

Environmental Quality, Radiation Control**Section R313-25-8****Technical Analyses****Change in Proposed Rule**

DAR File No.: 34240

Filed: 02/15/2011 11:41:33 AM

RULE ANALYSIS**Purpose of the rule or reason for the change:**

The purpose of this change in proposed rule is to further clarify when a site-specific performance assessment is required to be submitted to the Executive Secretary for approval regarding radioactive waste receipt and disposal based on the incorporation of comments received during the public comment period and approval of the proposed changes during the February 2011 Radiation Control Board meeting.

Summary of the rule or change:

Subsection R313-25-8(1)(a) adds language that clarifies when a performance assessment would be required by stating the waste was not part of the development of the limits on Class A waste and not included in the Draft Environmental Impact Statement prepared by the U.S. Nuclear Regulatory Commission for the development of Federal Rule 10 CFR 61. "Licensing Requirements for Land Disposal of Radioactive Waste." Item 1a of the proposed rule becomes item 1(b), and item 1(b) becomes item 1(c). In addition, item 1(d) is added to include a condition for waste that would result in an unanalyzed condition not considered in Rule R313-25 "License Requirements for Land Disposal of Radioactive Waste - General Provisions." Additionally, the words "the development of 10 CFR 61.55" was removed from 1(d). And lastly, the phrase "and changing lake levels" was removed from Subsection R313-25-8(4)(a). (DAR NOTE: This change in proposed rule has been filed to make additional changes to a proposed amendment that was published in the December 1, 2010, issue of the Utah State Bulletin, on page 48. Underlining in the rule below indicates text that has been added since the publication of the proposed rule mentioned above; strike-out indicates text that has been deleted. You must view the change in proposed rule and the proposed amendment together to understand all of the changes that will be enforceable should the agency make this rule effective.)

State statutory or constitutional authorization for this rule:

- Subsection 19-3-104(4)

**Anticipated cost or savings to:
the state budget:**

The State of Utah receives fees from licensees that dispose of radioactive waste under Section 19-3-106. Currently, EnergySolutions, LLC is the only radioactive waste disposal facility that accepts and disposes of radioactive waste. If this rule is promulgated, certain wastes may not be accepted at the facility until it has completed a site-specific performance assessment and it is approved by the Executive Secretary. The financial impacts on waste fees received by the State of Utah are difficult to specify because the impact depends on the following information that is not known at this time: when a site-specific performance assessment will be submitted and when it will be approved; when the rule takes effect it may cause waste receipts to be delayed; or whether there are competitors for the waste such that EnergySolutions could lose receipts altogether.

local governments:

Tooele County collects impact fees from waste facilities, including EnergySolutions. Tooele County's budget is therefore likely to be affected. Because of the reasons described above, the specific impact cannot be known at this time. However, the proposed change will not impact wastes that are currently approved for disposal and for which disposal fees are paid.

small businesses:

No small business in Utah will be directly impacted. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on small businesses.

persons other than small businesses, businesses, or local governmental entities:

The Board is not aware of any direct impact on other entities. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on other persons.

Compliance costs for affected persons:

A radioactive waste disposal facility may have to incur the cost of preparing a site-specific performance assessment under this rule, and may also bear the cost of the Division of Radiation Control's review of that performance assessment. The cost of a performance assessment is likely to be over \$1,000,000 initially, however, the licensee has initiated a performance assessment prior to this rule change and therefore, depending on the waste stream, may only have to modify a previous performance assessment and therefore, costs could be substantially lower.

Comments by the department head on the fiscal impact the rule may have on businesses:

If the rule is promulgated, one Utah business - EnergySolutions, LLC - may be unable to accept certain wastes until it has submitted a site-specific performance assessment and the performance assessment has been approved. The impact of this rule is hard to ascertain, because the Division of Radiation Control does not know when EnergySolutions will submit a performance assessment and when it will be approved, when EnergySolutions would otherwise have received certain wastes that would require them to prepare and submit a performance assessment, and whether or not future waste shipments will require a site-specific performance assessment prior to receipt. However, if a performance assessment is required, EnergySolutions will bear the cost of carrying out, preparing, and submitting the performance assessment which could be substantial.

Amanda Smith, Executive Director

The full text of this rule may be inspected, during regular business hours, at the Division of Administrative Rules, or at:

Environmental Quality
Radiation Control
195 N 1950 W
SALT LAKE CITY, UT 84116-3085

Direct questions regarding this rule to:

- Rusty Lundberg at the above address, by phone at 801-536-4257, by FAX at 801-533-4097, or by Internet E-mail at rlundberg@utah.gov

Interested persons may present their views on this rule by submitting written comments to the address above no later than 5:00 p.m. on:

This rule may become effective on:
03/31/2011

Authorized by:
Rusty Lundberg, Director

RULE TEXT

R313. Environmental Quality, Radiation Control.

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

R313-25-8. Technical Analyses.

(1) The licensee or applicant shall conduct a site-specific performance assessment and receive Executive Secretary 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 R313-25-19 during the time period at which peak dose would occur, or

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

(c)d) the disposal of the waste would result in an unanalyzed condition not considered in [the development of 10 CFR 61.55] 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 R313-28-8(1) shall notify the Executive Secretary 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 Executive Secretary has approved the information submitted pursuant to R313-25-8(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 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 [and changing lake levels]. 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 R313-25-19.

(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 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 R313-25-8(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 Executive Secretary'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 Executive Secretary of the performance assessment required in R313-25-8(5)(a).

(c) For purposes of this R313-25-8(5) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

KEY: radiation, radioactive waste disposal, depleted uranium

Date of Enactment or Last Substantive Amendment: [~~October 13, 2010~~]2011

Notice of Continuation: October 5, 2006

Authorizing, and Implemented or Interpreted Law: 19-3-104; 19-3-108

Additional Information

The Portable Document Format (PDF) version of the Bulletin is the official version. The PDF version of this issue is available at <http://www.rules.utah.gov/publicat/bull-pdf/2011/b20110301.pdf>. The HTML edition of the Bulletin is a convenience copy. Any discrepancy between the PDF version and HTML version is resolved in favor of the PDF version.

Text to be deleted is struck through and surrounded by brackets (e.g., [~~example~~]). Text to be added is underlined (e.g., example). Older browsers may not depict some or any of these attributes on the screen or when the document is printed.

For questions regarding the *content* or *application* of this rule, please contact Rusty Lundberg at the above address, by phone at 801-536-4257, by FAX at 801-533-4097, or by Internet E-mail at rlundberg@utah.gov. For questions about the *rulemaking process*, please contact the Division of Administrative Rules.

[Home](#) | [Publications](#) | [Utah State Bulletin](#) | [03/01/2011 Contents](#) | [File No. 34240](#)

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4120 State Office Building / Capitol Hill Complex / 450 North State Street / Salt Lake City, UT 84114
Phone: 801-538-3764 / Fax: 801-359-0759

eRules: Online Rule Filing Application

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 Mike Broschinsky: 801-538-3003, Nancy Lancaster: 801-538-3218, or Ken Hansen: 801-538-3777.

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- Agency Filing List
- Filing Time Frames
- Back to Administrative Rules' Home

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 and Subsection 53C-1-201(3)(c).
 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 Division of Administrative Rules.

Agency Information

1. **Agency:** Environmental Quality - Radiation Control
Room no.: Third Floor
Building:
Street address 1: 195 N 1950 W
Street address 2:
City, state, zip: SALT LAKE CITY UT 84116-3085
Mailing address 1: PO BOX 144850
Mailing address 2:
City, state, zip: SALT LAKE CITY UT 84114-4850

Contact person(s):

Name:	Phone:	Fax:	E-mail:
Rusty Lundberg	801-536-4257	801-533-4097	rlundberg@utah.gov

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Information

DAR file no: 34240 Date filed: 02/15/2011 11:41 AM
 State Admin Rule Filing Key: 150619
 Utah Admin. Code ref. (R no.): R 313 - 25 - 8
 Changed to Admin. Code ref. (R no.): --

Title

2. **Title of rule or section (catchline):**
 Technical Analyses

Notice Type

3. **Type of notice:** Change in Proposed Rule
Changes original proposed rule file no.: 34240

Rule Purpose

4. **Purpose of the rule or reason for the change:**
 The purpose of this change in proposed rule is to further clarify when a site-specific performance assessment is required to be submitted to the Executive Secretary for approval regarding radioactive waste receipt and disposal based on the incorporation of comments received during the public comment period and approval of the proposed changes during the February 2011 Radiation Control Board meeting.

Response Information

5. **This change is a response to comments by the Administrative Rules Review Committee.**
 No

Rule Summary

6. **Summary of the rule or change:**
 R313-25-8(1)(a) adds language that clarifies when a performance assessment would be required by stating the waste was not part of the development of the limits on Class A waste and not included in the Draft Environmental Impact Statement prepared by the U.S. Nuclear Regulatory Commission for the development of Federal Rule 10 CFR 61. "Licensing Requirements for Land Disposal of Radioactive Waste." Item 1a of the proposed rule becomes item 1(b), and item 1(b) becomes item 1(c). In addition, item 1(d) is added to include a condition for waste that would result in an unanalyzed condition not considered in R313-25 "License Requirements for Land Disposal of Radioactive Waste - General Provisions." Additionally, the words "the development of 10CFR 61.55" was removed from 1(d). And lastly, the phrase "and changing lake levels" was removed from R313-25-8(4)(a).

Aggregate Cost Information

7. **Aggregate anticipated cost or savings to:**
 A) State budget:

Affected: Yes

The State of Utah receives fees from licensees that dispose of radioactive waste under Section 19-3-106. Currently, EnergySolutions, LLC is the only radioactive waste disposal facility that accepts and disposes of radioactive waste. If this rule is promulgated, certain wastes may not be accepted at the facility until it has completed a site-specific performance assessment and it is approved by the Executive Secretary. The financial impacts on waste fees received by the State of Utah are difficult to specify because the impact depends on the following information that is not known at this time: when a site-specific performance assessment will be submitted and when it will be approved; when the rule takes effect it may cause waste receipts to be delayed; or whether there are competitors for the waste such that EnergySolutions could lose receipts altogether.

B) Local government:

Affected: Yes

Tooele County collects impact fees from waste facilities, including EnergySolutions. Tooele County's budget is therefore likely to be affected. Because of the reasons described above, the specific impact cannot be known at this time. However, the proposed change will not impact wastes that are currently approved for disposal and for which disposal fees are paid.

C) Small businesses:

Affected: No

(*small business* means a business employing fewer than 50 persons)

No small business in Utah will be directly impacted. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on small businesses.

D) Persons other than small businesses, businesses, or local government entities:

Affected: No

(*person* means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

The Board is not aware of any direct impact on other entities. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on other persons.

Compliance Cost Information

8. Compliance costs for affected persons:

A radioactive waste disposal facility may have to incur the cost of preparing a site-specific performance assessment under this rule, and may also bear the cost of the Division of Radiation Control's review of that performance assessment. The cost of a performance assessment is likely to be over \$1,000,000 initially, however, the licensee has initiated a performance assessment prior to this rule change and therefore, depending on the waste stream, may only have to modify a previous performance assessment and therefore, costs could be substantially lower.

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:

If the rule is promulgated, one Utah business - EnergySolutions, LLC - may be unable to accept certain wastes until it has submitted a site-specific performance assessment and the performance assessment has been approved. The impact of this rule is hard to ascertain, because the Division of Radiation Control does not know when EnergySolutions will submit a performance assessment and when it will be approved, when EnergySolutions would otherwise have received certain wastes that would require them to prepare and submit a performance assessment, and whether or not future waste shipments will require a site-specific performance assessment prior to receipt. However, if a performance assessment is required, EnergySolutions will bear the cost of carrying out, preparing, and submitting the performance assessment which could be substantial.

B) Name and title of department head commenting on the fiscal impacts:

Amanda Smith, Executive Director

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.

State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601(3); Article IV) :
Subsection 19-3-104(4)

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank) :

	Official Title of Materials Incorporated (from title page): Publisher: Date Issued: Issue, or version: ISBN Number: ISSN Number: Cost of Incorporated Reference: Adds, updates, removes:
--	---

Comments

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

A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) :

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): **At** (hh:mm AM/PM): **At** (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy):

03/31/2011

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 Division 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.

Indexing Information

14. Indexing information - keywords (maximum of four, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):

radiation
depleted uranium
radioactive waste disposal

Land disposal of radioactive waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):

There is a document associated with this rule filing.

[View Rule Document](#)

To the Agency

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 *Utah State Bulletin*, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and title:

Rusty Lundberg Director

Date (mm/dd/yyyy): 02/15/2011

[Printable](#)

R313. Environmental Quality, Radiation Control.

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

R313-25-8. Technical Analyses.

(1) The licensee or applicant shall conduct a site-specific performance assessment and receive Executive Secretary 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, ~~and either (b) (c) or (d) below apply~~ or

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

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

~~(e) d~~ the disposal of the waste would result in an unanalyzed condition not considered in ~~the development of 10 CFR 61.55~~ 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 R313-28-8(1) shall notify the Executive Secretary 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 Executive Secretary has approved the information submitted pursuant to R313-25-8(1) or (2).

~~(1) 4~~ The ~~specific technical information~~ licensee or applicant shall also include in the specific technical information the following analyses needed to demonstrate that the performance objectives of 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, ~~and changing lake levels~~. 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 R313-25-19.

(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 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, ~~and~~ 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.

~~(2) 5~~(a) Notwithstanding R313-25-8(1), ~~A~~ 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 Executive Secretary'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 Executive Secretary of the performance assessment required in R313-25-8(~~2) 5~~(a).

(c) For purposes of this R313-25-8(~~2) 5~~) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

KEY: radiation, radioactive waste disposal, depleted uranium

Date of Enactment or Last Substantive Amendment: ~~October 13, 2010~~ 2011

Notice of Continuation: October 5, 2006

Authorizing, and Implemented or Interpreted Law: 19-3-104; 19-3-108



Utah Division of Administrative Rules RULEMAKING TIME FRAMES

Bulletin Issue No.	Bulletin Publication Date	Filing Window Opens*	Filing Deadline*	End of Mandatory (30th Day)** Comment Period	First Possible Effective Date***	End of Maximum Comment Period	Last Possible Effective Date (120th Day After Publication)†
2009-13	07/01/2009, Wed	06/02/2009, Tue, 12:00 AM	06/15/2009, Mon, 11:59 PM	07/31/2009, Fri	08/07/2009, Fri	10/22/2009, Thu	10/29/2009, Thu
2009-14	07/15/2009, Wed	06/16/2009, Tue, 12:00 AM	07/01/2009, Wed, 11:59 PM	08/14/2009, Fri	08/21/2009, Fri	11/05/2009, Thu	11/12/2009, Thu
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State Holidays:	2009	2010
New Year's Day	01/01/2009, Thu	01/01/2010, Fri
Dr. Martin Luther King, Jr. Day	01/19/2009, Mon	01/18/2010, Mon
Washington and Lincoln Day	02/16/2009, Mon	02/15/2010, Mon
Memorial Day	05/25/2009, Mon	05/31/2010, Mon
Independence Day	07/03/2009, Fri	07/05/2010, Mon
Pioneer Day	07/24/2009, Fri	07/23/2010, Fri
Labor Day	09/07/2009, Mon	09/06/2010, Mon
Columbus Day	10/12/2009, Mon	10/11/2010, Mon
Veterans' Day	11/11/2009, Wed	11/11/2010, Thu
Thanksgiving Day	11/26/2009, Thu	11/25/2010, Thu
Christmas	12/25/2009, Fri	12/25/2010, Sat

NOTES:

* Filing deadlines have been adjusted to account for weekends and holidays. This schedule reflects filing deadlines established by Section R15-4-3.
 ** The mandatory comment period for a Proposed Rule is 30 days. The last day of the comment period must also be a working day. The dates in this column reflect these requirements. Subsections 63G-3-301(1) and (12); Section R15-4-4.
 ***Statute requires that the Notice of Effective Date must be received by the Division of Administrative Rules on or before the effective date of the rule. Subsection 63G-3-301(12). The Division will not accept a Notice of Effective Date prior to the end of the agency-designated comment period. Statute provides that a rule may be made effective "no fewer than seven calendar days after the close of the public comment period."
 † Statute provides that a rule may be made effective no "more than 120 days after the publication date." Subsection 63G-3-301(11).

From: <rules@utah.gov>
To: <rules@utah.gov>, <khansen@utah.gov>, <jhultquist@utah.gov>, <mbroschi@u...>
Date: 2/15/2011 11:41 AM
Subject: eRules 2--Filing Submitted: No. 34240 for the 03/01/2011 Bulletin

A filing has been submitted.

DAR No. 34240

Department: Environmental Quality

Agency: Radiation Control

Code Ref. No.: R313-25-8

Title: Technical Analyses

Filing Type: Change in Proposed Rule

Available at: <http://erules.rules.utah.gov/erules/secure/loginAuthorize.action?emailUrlPassing&ruleId=150619>

The Division of Administrative Rules' staff will review this filing to ensure that the required information has been provided and that the text is correctly marked. If the staff has questions or identifies problems, you will be contacted by E-mail. Barring unforeseen circumstances, this filing will be published in the next issue of the Bulletin (see <http://www.rules.utah.gov/agencyresources/timeframes.htm> for the publication schedule).

Thank you!

Division of Administrative Rules

rules@utah.gov

801-538-3218

Draft

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 Division of Administrative Rules.

Rule Information

DAR file no: 34240 Date filed:
 State Admin Rule Filing Key: 150619
 Utah Admin. Code ref. (R no.): R313-25-8

Agency Information

1. Agency: ENVIRONMENTAL QUALITY - Radiation Control
 Room no.: Third Floor
 Building:
 Street address 1: 195 N 1950 W
 Street address 2:
 City, state, zip: SALT LAKE CITY UT 84116-3085
 Mailing address 1: PO BOX 144850
 Mailing address 2:
 City, state, zip: SALT LAKE CITY UT 84114-4850

Contact person(s):

Name: Phone: Fax: E-mail: Remove:

(Interested persons may inspect this filing at the above address or at DAR during business hours)

Rule Title

2. Title of rule or section (catchline):
 Technical Analyses

Notice Type

3. Type of notice: Change in Proposed Rule
 Changes DAR No.: 34240
 (If you do not know the DAR no., call 801-538-3218.)

Rule Purpose

4. Purpose of the rule or reason for the change:
 The purpose of this change in proposed rule is to further clarify when a site-specific performance assessment is required to be submitted to the Executive Secretary for approval regarding radioactive waste receipt and disposal based on the incorporation of comments received during the public comment period and approval of the proposed changes during the February 2011 Radiation Control Board meeting.

Response Information

5. This change is a response to comments by the Administrative Rules Review Committee.

No Yes

Rule Summary

6. Summary of the rule or change: *adds clarifies*
~~Rule R313-25-8(1)(a) had language added that clarified when a performance assessment would be required by stating the waste was not part of the development of the limits on Class A waste and not included in the Draft Environmental Impact Statement regarding Federal Rule 10 CFR 61, "Licensing Requirements for Land Disposal of Radioactive Waste." Item 1a of the proposed rule became item 1(b), and item 1(b) became item 1(c). In addition, item 1(d) ~~was~~ added to include a "catch all phrase" for waste that would result in an unanalyzed condition not considered in Rule R313-25 "License Requirements for Land Disposal of Radioactive Waste - General Provisions." Additionally, the words "the development of 10CFR 61.55 was removed from 1(d). Furthermore, the phrase "and changing lake levels" was removed from R313-25-8(4). that~~

Prepared by the U.S. Nuclear Regulatory Commission for the development of

becomes condition

Aggregate Cost Information

7. Aggregate anticipated cost or savings to:

A) State budget:

Affected: No Yes

The State of Utah receives fees from licensees that dispose of radioactive waste under Section 19-3-106.

Currently, EnergySolutions, LLC is the only radioactive waste disposal facility that accepts and disposes of radioactive waste. If this rule is promulgated, certain wastes may not be accepted at the facility until it has completed a site-specific performance assessment and it is approved by the Executive Secretary. The financial impacts on waste fees received by the State of Utah are difficult to specify because the impact depends on the following information that is not known at this time: when a site-specific performance assessment will be submitted and when it will be approved; when the rule takes effect it may cause waste receipts to be delayed; or whether there are competitors for the waste such that EnergySolutions could lose receipts altogether.

However, the proposed change will not impact wastes that are currently approved for disposal and for which disposal fees are paid.

B) Local government:

Affected: No Yes

Tooele County collects impact fees from waste facilities, including EnergySolutions. Tooele County's budget is therefore likely to be affected. Because of the reasons described above, the specific impact cannot be known at this time.

C) Small businesses:

Affected: No Yes

("small business" means a business employing fewer than 50 persons)

No small business in Utah will be directly impacted. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on small businesses.

D) Persons other than small businesses, businesses, or local government entities:

Affected: No Yes

("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an agency)

The Board is not aware of any direct impact on other entities. This amendment changes a rule that is specific to companies or licensees that dispose of radioactive waste. As a result of this narrow scope, there should be no direct impact on other persons.

Compliance Cost Information

8. Compliance costs for affected persons:

A radioactive waste disposal facility may have to incur the cost of preparing a site-specific performance assessment under this rule, and may also bear the cost of the Division of Radiation Control's review of that performance assessment. The cost of a performance assessment is likely to be over \$1,000,000 initially; however, the licensee has initiated a performance assessment prior to this rule change and therefore, depending on the waste stream, may only have to modify a previous performance assessment and therefore, costs could be substantially lower.

Division of Radiation Control

Department Head Comments

9. A) Comments by the department head on the fiscal impact the rule may have on businesses:

If the rule is promulgated, one Utah business - EnergySolutions, LLC - may be unable to accept certain wastes until it has submitted a site-specific performance assessment and the performance assessment has been approved. The impact of this rule is hard to ascertain, because the Board does not know when EnergySolutions will submit a performance assessment and when it will be approved. When EnergySolutions would otherwise have received certain wastes that would require them to prepare and submit a performance assessment, and whether or not future waste shipments will require a site-specific performance assessment prior to receipt. However, if a performance assessment is required, EnergySolutions will bear the cost of carrying out, preparing, and submitting the performance assessment which could be substantial.

B) Name and title of department head commenting on the fiscal impacts:

Amanda Smith, Executive Director

Citation Information

10. This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.

State code or constitution citations (required) (e.g., Section 63G-3-402; Subsection 63G-3-601(3); Article IV):

Subsection 19-3-104(4)

Incorporated Materials

11. This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank):

Official Title of Materials Incorporated (from title page)
Publisher
Date Issued
Issue, or version
ISBN Number
ISSN Number
Cost of Incorporated Reference
Adds, updates, removes-- SELECT ONE --

Comments

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

A) Comments will be accepted until 5:00 p.m. on (mm/dd/yyyy) :

B) A public hearing (optional) will be held:

On (mm/dd/yyyy): At (hh:mm AM/PM): At (place):

Proposed Effective Date

13. This rule change may become effective on (mm/dd/yyyy): 04/04/2011

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 Division 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.

Indexing Information

14. Indexing information - keywords (maximum of four, one term per field, in lower case, except for acronyms (e.g., "GRAMA") or proper nouns (e.g., "Medicaid")):
radiation, depleted uranium, radioactive waste disposal, Land disposal of radioactive waste

File Information

15. Attach an RTF document containing the text of this rule change (filename):

There is a document associated with this rule filing.

To the Agency

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 Utah State Bulletin, and delaying the first possible effective date.

Agency Authorization

Agency head or designee, and
title:

Rusty Lundberg
Director

Date (mm/dd/yyyy): 02/14/2011

- (1) The licensee or applicant shall conduct a site-specific performance assessment and receive Executive Secretary 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, and either (b) (c) or (d) below apply:
 - (ba) the waste is likely to result in greater than 10 percent of the dose limits in R313-25-19 during the time period at which peak dose would occur, or
 - (cb) the waste will result in greater than 10 percent of the total site source term over the operational life of the facility, or
 - (de) for any other reason, the disposal of the waste would result in an unanalyzed condition not considered in Rule R313-25, the development of 10 CFR 61.55.
- (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 R313-28-8(1) shall notify the Executive Secretary 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 Executive Secretary has approved the information submitted pursuant to R313-25-8(1) or (2).
- (4) The [~~specific technical information~~] licensee or applicant shall also include in the specific technical information the following analyses needed to demonstrate that the performance objectives of 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, ~~and changing lake levels~~. 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 R313-25-19.
 - b) Analyses of the protection of inadvertent intruders shall demonstrate a reasonable assurance 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 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, ~~and~~ 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 R313-25-8(1), [A]any facility that proposes to land disposal of significant quantities of concentrated depleted uranium (more than one metric ton in total accumulation) after June 1,2010, shall submit for the Executive Secretary's review and approval a performance assessment that demonstrates that the performance standards specified in 10 CFR Part 61 and corresponding provisions of the 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 Executive Secretary of the performance assessment required in R313-25-8[2](5)(a).

(c) For purposes of this R313-25-8[2](5) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.

ATTACHMENT B

CHANGE IN PROPOSED RULE

Introduction

Based on the DRC's review of the comments received during the comment period as well as the responses to comments, the following changes to the proposed rule are incorporated for the Board's consideration. The DRC understands the changes to the proposed rule would have to be filed again under a "change in proposed rule" with the Division of Administrative Rules. Once the "change in proposed rule" is published in the Utah Bulletin, administrative rulemaking procedures require a minimum of 30 days before the rule changes can become effective (final).

Change in Proposed Rule

[NOTE: The revised text for the change in proposed rule is noted in **bold**. The proposed changes that were published for public comment remain as originally marked.]

- (1) The licensee or applicant shall conduct a site-specific performance assessment and receive Executive Secretary 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 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**
 - (ba) the waste is likely to result in greater than 10 percent of the dose limits in R313-25-19 during the time period at which peak dose would occur, or
 - (cb) the waste will result in greater than 10 percent of the total site source term over the operational life of the facility, or
 - (de) **for any other reason, the disposal of the waste would result in an unanalyzed condition not considered in UAC R313-25-**~~the development of 10 CFR 61.55.~~
Rule
- (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 R313-28-8(1) shall notify the Executive Secretary 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 Executive Secretary has approved the information submitted pursuant to R313-25-8(1) or (2).
- ([+]~~4~~) The [~~specific technical information~~] licensee or applicant shall also include in the specific technical information the following analyses needed to demonstrate that the performance objectives of 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, ~~and changing lake levels.~~ 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 R313-25-19.

b) Analyses of the protection of inadvertent intruders shall demonstrate a reasonable assurance 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 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, [and] 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.

~~(2)~~(a) Notwithstanding R313-25-8(1), [A]any facility that proposes to land disposal of significant quantities of concentrated depleted uranium (more than one metric ton in total accumulation) after June 1,2010, shall submit for the Executive Secretary's review and approval a performance assessment that demonstrates that the performance standards specified in 10 CFR Part 61 and corresponding provisions of the 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 Executive Secretary of the performance assessment required in R313-25-8~~(2)~~(5)(a).

(c) For purposes of this R313-25-8~~(2)~~(5) only, "concentrated depleted uranium" means waste with depleted uranium concentrations greater than 5 percent by weight.