



**Department of Energy**  
Washington, DC 20585  
February 17, 2000

RCRA Docket Information Center  
U.S. Environmental Protection Agency  
Headquarters (EPA, HQ)  
Office of Solid Waste (5305G)  
401 M Street, S.W.  
Washington, D.C. 20460

**Docket Number F-99-ML2P-FFFFF**

Dear Sir or Madam:

*Re: 64 FR 63464, "Storage, Treatment, Transportation, and Disposal of Mixed Waste"*

On November 19, 1999, the Environmental Protection Agency (EPA) published a notice of proposed rulemaking (NPRM) that proposes to provide increased regulatory flexibility to facilities which manage low-level mixed waste (LLMW) and naturally occurring and/or accelerator-produced radioactive material (NARM) mixed with hazardous waste. Specifically, the NPRM proposes a storage and treatment conditional exemption from the Resource Conservation and Recovery Act (RCRA) definition of hazardous waste for certain LLMW being generated, and stored and/or treated on-site by a Nuclear Regulatory Commission (NRC) or Agreement State licensee. In addition, the NPRM proposes a conditional exemption from RCRA hazardous waste transportation and disposal requirements for certain LLMW and "eligible NARM." Any LLMW or eligible NARM waste could qualify for the transportation/disposal conditional exemption by meeting the conditions of the exemption.

The Department of Energy (DOE) appreciates the opportunity to comment on the NPRM, and commends EPA for proposing the storage/treatment conditional exemption for LLMWs and the transportation/disposal conditional exemption for LLMWs and NARM-contaminated hazardous wastes. DOE believes such conditional exemptions are appropriate for (1) treatment and storage of LLMWs in compliance with NRC or Agreement State regulations, (2) transportation of LLMWs and NARM-contaminated hazardous wastes according to NRC and Department of Transportation (DOT) regulations, and (3) disposal of LLMWs and NARM-contaminated hazardous wastes at a facility licensed by the NRC or an Agreement State. This belief is based primarily on the Department's opinion that, at facilities to which they apply, NRC and Agreement State licensing programs already protectively address LLMW management scenarios that might otherwise warrant regulation under RCRA in order to prevent hazardous waste constituent releases.

DOE also supports development of the proposed alternative approach whereby dual regulation of qualifying LLMW and NARM-contaminated hazardous waste could be reduced through State-approved, site-specific, risk-based variances from RCRA requirements. DOE believes that evaluating risks posed by placing specific wastes into a particular management unit under site-specific requirements is a justifiable method for granting site-specific variances and conditional exemptions from RCRA requirements. Furthermore, DOE believes such a site-specific variance approach would offer a useful regulatory alternative in States where DOE facilities are located with respect to the management and disposition of certain DOE-generated LLMW. DOE is confident that the protectiveness of low-level waste disposal facilities complying with DOE directives in disposing treated LLMW can be demonstrated. Therefore, the Department encourages EPA and the States to pursue development of a regulatory structure within which this protectiveness could be demonstrated and recognized on a site-specific basis.

The enclosed comments are divided into two sections: general and specific. The general comments provide overarching positions and requests. The specific comments relate directly to potential regulatory approaches and issues raised in particular sections of the NPRM. For clarity, each specific comment is preceded by a reference to the section of the NPRM to which it applies, and a brief description is given in boldface type of the issue within that section to which DOE's comment is directed. If there are questions concerning these comments, or if further information is needed in regard to any comment, please contact Bill Fortune of my staff at (202) 586-7302 or [william.fortune@eh.doe.gov](mailto:william.fortune@eh.doe.gov).

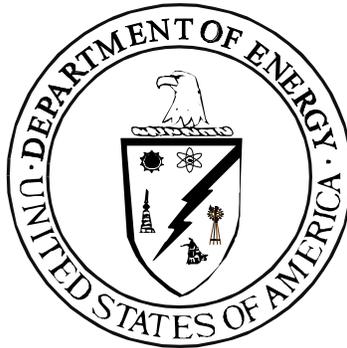
Sincerely,



Raymond P. Berube  
Acting Director  
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Enclosure

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**UNITED STATES  
DEPARTMENT OF ENERGY**

**COMMENTS ON STORAGE, TREATMENT,  
TRANSPORTATION, AND  
DISPOSAL OF MIXED WASTE**

**NOTICE OF PROPOSED RULEMAKING  
(64 FR 63464 - 63501; November 19, 1999)**

**TABLE OF CONTENTS**

GENERAL COMMENTS ..... 1

    1. .... 1

    2. .... 1

    3. .... 2

    4. .... 2

    5. .... 3

SPECIFIC COMMENTS ..... 4

    Definition of Terms Used in the Preamble

        1. p. 63466, cols. 1 & 2 and p. 63498, col. 2 ..... 4

        2. p. 63466, col. 2 and p. 63498, col. 3 ..... 4

        3. p. 63466, col. 2 and p. 63498, col. 3 ..... 5

        4. p. 63466, col. 3 ..... 5

    II. Summary of Today’s Action

        1. p. 63467, col. 2 ..... 6

    II.B. What Regulatory Changes Are We Proposing for Transportation and Disposal of LLMW and Eligible NARM?

        1. p. 63468, col. 2 ..... 7

    V. Low-Level Mixed Waste Storage and Treatment

        1. p. 63470, col. 3 ..... 7

    V.A. What Conditional Exemption for Stored or Treated Low-Level Mixed Waste Are We Proposing?

        1. p. 63471, col. 1 ..... 8

    V.A.1. How Does the Proposal Facilitate Decay-in-Storage?

        1. p. 63471, cols. 1 & 2 ..... 9

    V.A.2. For What Time Period is a Storage Exemption Valid?

        1. p. 63471, cols. 2 & 3 ..... 10

        2. p. 63471, col. 3 ..... 10

        3. p. 63471, col.3 ..... 10

    V.B. What is Our Low-Level Mixed Waste Storage and Treatment Proposal?

    V.B.2. What Conditions Must You Meet as a Generator?

        1. p. 63472, col. 2 ..... 11

        2. p. 63472, col. 3 & p. 63473, col. 2 ..... 12

        3. p. 63472, col. 3 ..... 13

        4. p. 63473, col. 1 ..... 13

    V.B.6. Can Your Exemption be Reclaimed if You Fail to Meet a Condition?

        1. p. 63474, col. 1 ..... 13

VI.	Transportation and Disposal Conditional Exemption For Mixed Waste and Eligible NARM	
VI.B	Applicability of the Proposal	
VI.B.1	To What Types of Waste Does This Rule Apply?	
1.	<u>pp. 63477, col. 3 &amp; 63478, col. 1</u> . . . . .	14
VI.C	What is the Point of Exemption?	
1.	<u>p. 63478, cols. 1 &amp; 2</u> . . . . .	14
2.	<u>p. 63478, cols. 1 &amp; 2</u> . . . . .	14
3.	<u>p. 63478, col. 2</u> . . . . .	15
VI.D.	Implementation and Enforcement	
VI.D.4.	Can Your Exemption be Reclaimed if You Fail to Meet a Condition?	
1.	<u>p. 63479, col. 2</u> . . . . .	15
VI.E	What Conditions Must You Meet Prior to Claiming the Transportation and Disposal Exemption?	
VI.E.1	Why Are We Requiring LDR Treatment?	
VI.E.1.a	What are the existing RCRA LDR treatment requirements for various types of LLMW?	
1.	<u>pp. 63480, col. 3 &amp; 63481, col. 1</u> . . . . .	16
VI.E.3	What Are the Conditions for Manifesting and Transporting the Exempted Waste?	
VI.E.3.a	Why is it appropriate to manifest and transport the RCRA-exempted mixed waste only according to NRC, or an Agreement State’s manifest and transportation requirements?	
1.	<u>p. 63482, col. 3</u> . . . . .	17
VI.F.	What is EPA’s Site-Specific, Risk-Based Variance Alternative for Disposal?	
1.	<u>p. 63484, cols. 2 &amp; 3</u> . . . . .	17
VI.G.	How Did we Conduct our Technical Assessment for the Disposal of Treated Waste at Low-Level Radioactive Waste Disposal Facilities?	
VI.G.2.	What Was the Technical Assessment we Conducted?	
VI.G.2.b.	How were the sites evaluated?	
VI.G.2.b.v	How is the protection of ground water against chemical release at LLRWDFs addressed in this proposal?	
1.	<u>p. 63488, col. 2</u> . . . . .	18

VIII.	State Authorization	
1.	<u>p. 63492, cols. 1 &amp; 2</u> . . . . .	19
IX.	Relationship With Other RCRA and Environmental Programs	
IX.A.	What is the Relationship of This Proposal With Other RCRA Regulatory Programs?	
I.X.A.5.	Will the Proposed Rule Change How the RCRA Closure Requirements Apply to My Disposal Facility?	
1.	<u>p. 63492, col. 3</u> . . . . .	19
Proposed Regulatory Language for 40 CFR Part 266, Subpart N		
40 CFR 266.220 through 266.255		
1.	<u>p. 63499, col. 1</u> – 40 CFR 266.230(d). . . . .	19
2.	<u>p. 63499, cols. 1 &amp; 3</u> – 40 CFR 266.230(f) and 266.250. . . . .	20
3.	<u>p. 63499, col. 2</u> – 40 CFR 266.240. . . . .	20
4.	<u>p. 63499, col. 2</u> – 40 CFR 266.240(b). . . . .	20
5.	<u>p. 63499, col. 2</u> – 40 CFR 266.240(c). . . . .	21
6.	<u>p. 63499, col. 2</u> – 40 CFR 266.245(a)(2). . . . .	21
7.	<u>p. 63499, col. 3</u> – 40 CFR 266.255(b). . . . .	21
40 CFR 266.315(a)		
1.	<u>p. 63500, col. 1</u> . . . . .	21
40 CFR 266.340		
1.	<u>p. 63500, col. 3</u> . . . . .	21
40 CFR 266.365(a)		
1.	<u>p. 63500, col. 3</u> . . . . .	22
40 CFR 266.380		
1.	<u>p. 63501, col. 2</u> . . . . .	22

**UNITED STATES DEPARTMENT OF ENERGY  
COMMENTS ON STORAGE, TREATMENT, TRANSPORTATION, AND  
DISPOSAL OF MIXED WASTE**

**NOTICE OF PROPOSED RULEMAKING  
(64 FR 63464 - 63501; November 19, 1999)**

**GENERAL COMMENTS**

1. As discussed in comments on the Advance Notice of Proposed Rulemaking (ANPRM),<sup>1</sup> the Department of Energy (DOE or the Department) supports the general concept of establishing conditional exemptions from the Resource Conservation and Recovery Act (RCRA) hazardous waste management requirements for wastes regulated under a non-RCRA regulatory program, when the non-RCRA program adequately addresses those scenarios under which such wastes could pose a hazard to human health and the environment. DOE believes that certain low-level mixed wastes (LLMWs) being treated or stored, or transported and disposed under the Nuclear Regulatory Commission (NRC) or an Agreement State regulatory program are wastes for which such conditional exemptions are appropriate. DOE also believes that hazardous wastes contaminated with naturally occurring or accelerator produced radioactive material (NARM) being transported according to NRC and Department of Transportation (DOT) regulations, and disposed at a facility licensed by the NRC or an Agreement State are wastes for which conditional exemptions are appropriate. Consequently, DOE commends the Environmental Protection Agency (EPA or the Agency) for proposing the storage and treatment conditional exemption for LLMWs and the transportation and disposal conditional exemption for LLMWs and NARM-contaminated hazardous wastes, when such wastes are managed under these non-RCRA regulatory programs and meet other appropriate conditions (e.g., meet LDR treatment standards).
  
2. Although DOE supports the conditional exemptions described by the notice of proposed rulemaking (NPRM) [64 FR 63464], the Department believes the relief provided by the final rule will be available to only a small percentage of DOE's total LLMW inventory. Furthermore, DOE believes that low-level radioactive waste (LLW) management facilities complying with AEA requirements *as specified in DOE directives* (e.g., orders) are equally as protective of human health and the environment as LLW management facilities complying with AEA requirements *as specified in NRC and Agreement State regulations and licenses*. Of course, a differentiating factor, about which States are concerned, is the absence of State oversight at DOE LLW management facilities. DOE recognizes the need to address this concern and the dilemma it has created for EPA regarding extension of the proposed conditional exemptions to DOE LLW management activities. For this reason, DOE is very interested in working with States and EPA to identify viable ways for implementing a meaningful State oversight role that would obviate current concerns about making conditional exemptions available to DOE LLMW managed

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<sup>1</sup> DOE Comments, "Approach to Reinventing Regulations on Storing Mixed Low-Level Radioactive Waste," Advance Notice of Proposed Rulemaking (64 FR 10064 - 10073; March 1, 1999), General Comment #1, p. 1 (April 15, 1999).

on-site. One possible model is an agreement now in place between DOE Nevada Operations Office and the State of Nevada (see Specific Comment VI.F, item 1), which, among other things, effectuates meaningful State oversight of LLW management activities at the Nevada Test Site.

Considering DOE's confidence in the protectiveness of its LLW management facilities and practices (as governed by Order DOE 435.1, "Radioactive Waste Management"), the Department is optimistic that, if a viable and meaningful State oversight role can be worked out, States may be willing to revisit their position on conditional exemptions from RCRA requirements for DOE LLMW management activities. DOE is particularly hopeful that this could occur if the option of State-approved, site-specific, risk-based variances was available. Consequently, DOE supports development of an alternative approach in the EPA regulations whereby dual regulation of qualifying LLMW and NARM-contaminated hazardous waste could be reduced through State-approved, site-specific, risk-based variances from RCRA requirements. DOE believes that evaluating risks posed by placing specific wastes into a particular management unit under site-specific requirements is a justifiable method for granting site-specific variances and conditional exemptions from RCRA requirements, as is further discussed in Specific Comment VI.F, item 1.

In conclusion, the Department is very interested in exploring with EPA and the States an approach whereby a viable, meaningful, State oversight role can be forged with respect to DOE LLW management activities. As a consequence of such a collaborative effort, DOE hopes that a paradigm can be developed whereby disposal of DOE LLMW in DOE-controlled LLW management facilities (including low-level radioactive waste disposal facilities (LLRWDFs)) could eventually qualify for either a conditional exemption from RCRA hazardous waste management requirements, or a site-specific risk-based variance from RCRA requirements.

3. As stated in the DOE response to the ANPRM,<sup>2</sup> and further discussed in Specific Comment V.B.2, item 2, DOE believes facilities which provide treatment and storage services to mixed waste generators should be allowed to qualify for a conditional exemption or other relief from RCRA regulations, if such facilities are licensed by the NRC or an Agreement State and meet other conditions of exemption, regardless of whether the licensed storage or treatment unit is located on- or off-site with respect to the location at which the waste is generated. This belief is based primarily on DOE's opinion that at facilities to which they apply, NRC and Agreement State licensing programs already protectively address LLMW management scenarios that might otherwise produce risks to human health or the environment warranting regulation of the LLMW as hazardous waste under RCRA. It should not matter whether the licensed unit is located at a facility that provides services to other mixed waste generators, unless EPA has evidence that the likelihood of LLMW releases from licensed treatment and/or storage units at such off-site facilities is greater than from licensed treatment and/or storage units located at the facility that generates the wastes.

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<sup>2</sup> DOE Comments, "Approach to Reinventing Regulations on Storing Mixed Low-Level Radioactive Waste," Advance Notice of Proposed Rulemaking (64 FR 10064 - 10073; March 1, 1999), General Comment #1, p. 1 and Specific Comment II.A.6, item 3, p. 4 (April 15, 1999).

4. While fully supporting EPA's effort to develop the treatment/storage and transportation/disposal conditional exemptions proposed in this Notice of Proposed Rulemaking (NPRM) for certain LLMW, DOE also believes that a conditional exemption could be justified for disposal of high-level mixed waste in a geologic repository. The disposal of high-level radioactive waste (HLW) in a geologic repository is mandated by the Nuclear Waste Policy Act of 1982 [P.L. 97-425]. As the DOE response to the ANPRM stated,<sup>3</sup> DOE believes that such a repository will more than adequately protect against possible risks from RCRA hazardous constituents in high-level mixed waste. Reasons for this belief include: (1) the characteristics of the treated form for high-level mixed waste (i.e., vitrified waste form); and (2) the requirements in 10 CFR 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," which include, but are not limited to the following:
- The requirement to obtain an NRC license;
  - The requirement to keep records and make reports in connection with licensed activities;
  - The requirement to allow NRC to inspect the premises;
  - The requirement to design and construct according to specified technical criteria;
  - The requirement for a continuing program of surveillance, measurement, testing, and geologic mapping during construction and operation; and
  - The requirement for personnel training and certification.
5. The proposed storage conditional exemption is characterized in §266.220 (64 FR 63498) as an "exemption from the regulatory definition as hazardous waste." Notwithstanding, while there are many statements in the preamble to the NPRM that discuss the relief being provided by the storage and treatment conditional exemption from RCRA permitting requirements, there is not much discussion of relief from other RCRA requirements (e.g., see pp. 63471, col. 1; 63472, col. 1; 63473, col. 2). This leaves the impression that the conditional exemption may be only an exemption from RCRA permitting requirements. It would be helpful if the preamble would list the RCRA regulations (by section) from which stored LLMW would be exempt, if such waste qualifies for the treatment and storage conditional exemption.

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<sup>3</sup> DOE Comments, "Approach to Reinventing Regulations on Storing Mixed Low-Level Radioactive Waste," Advance Notice of Proposed Rulemaking (64 FR 10064 - 10073; March 1, 1999), Specific Comment VI.B, item 1, p. 9 (April 15, 1999).

## SPECIFIC COMMENTS

### Definition of Terms Used in the Preamble

1. **p. 63466, cols. 1 & 2 and p. 63498, col. 2 – “Low-Level Radioactive Waste Disposal Facility (LLRWDF)” is defined to mean “a disposal facility licensed by the NRC or Agreement State for the disposal of low-level waste” [emphasis added].**

DOE suggests that EPA omit the definition quoted above from the preamble and the regulatory language of the final rule for the following reasons:

- Other than the phrase, “licensed by the NRC or Agreement State,” the definition contains no more than a spelling out of the acronym, LLRWDF.
- Throughout the preamble and the proposed regulations, the phrase, “licensed by NRC or an Agreement State,” frequently follows the acronym, LLRWDF. Also, the phrase, “NRC- or Agreement State-licensed,” precedes LLRWDF in several places. Therefore, the definition of “LLRWDF” is unnecessary if, beyond spelling out the acronym, all it contains is the added phrase, “licensed by the NRC or Agreement State.”
- In at least two locations (p. 63478, col. 1; p. 63490, col. 2), the preamble refers to a LLRWDF as being self-regulated by DOE. If the definition of LLRWDF is retained as quoted above, then the term “DOE self-regulated LLRWDF” would be internally inconsistent.

DOE believes it is not necessary to define “low-level radioactive waste disposal facility” because the term is more or less self-explanatory. Hence, spelling out the acronym, as is otherwise done in the preamble on page 63465 (col. 3), should be sufficient.

2. **p. 63466, col. 2 and p. 63498, col. 3 – “Naturally Occurring and/or Accelerator-produced Radioactive Material (NARM)” is defined to mean “radioactive materials that are naturally occurring or produced by an accelerator. . . . Currently NARM is not regulated by NRC or EPA. Rather it is regulated by the States under State law, or by DOE under DOE Orders.”**

As defined in this section of the preamble, NARM would encompass naturally occurring radioactive materials such as uranium or thorium mill tailings, which the Atomic Energy Act of 1954, as amended (AEA) [P.L. 83-703; 68 Stat. 919] includes in the definition of byproduct material [AEA §11e.(2); 42 U.S.C. 2014(e)(2)], or natural uranium or thorium, which the AEA includes in the definition of source material [AEA §11z.; 42 U.S.C. 2014(z)]. In contrast, the definitions of NARM adopted by the EPA Mixed Waste Team [www.epa.gov/radiation/mixed-waste/mw\_pg5.htm] and contained in the proposed regulatory language for 40 CFR Part 266, Subpart N [64 FR 63498] limit the definition of NARM to radioactive materials that are *not covered under the AEA*, and that are naturally occurring or produced in an accelerator. Similarly, DOE defines “NARM” to mean “radioactive materials that are considered either naturally

occurring and are not source, special nuclear, or by-product material or are produced in a charged particle accelerator.”<sup>4</sup>

Hence, for consistency with other established definitions of NARM, DOE suggests that, in the final rule, EPA modify the definition of NARM in both the preamble and the regulatory text to exclude “source, special nuclear and by-product materials (as defined by the AEA).” To accomplish this and for accuracy, DOE recommends that EPA modify the definition of NARM to read as follows [redline font = addition; ~~strikeout~~ font = deletion]:

*Naturally Occurring and/or Accelerator-Produced Radioactive Material (NARM)* – means radioactive materials ~~not covered under the AEA~~ that (1) are naturally occurring **and are not source, special nuclear, or byproduct materials (as defined by the AEA)**, or (2) are produced by an accelerator. The naturally occurring radioactive material (NORM) is defined below. NARM is regulated by the States under State law, or by DOE (**as authorized by the AEA**) under DOE Orders.

3. **p. 63466, col. 2 and p. 63498, col. 3 – “Naturally Occurring Radioactive Material (NORM)” is defined, in part, to refer to “materials whose radioactivity has been enhanced (radionuclide concentrations are either increased or redistributed where they are more likely to cause human exposures) usually by mineral extraction or processing activities.”**

For the same reasons as were outlined above concerning the definition of “NARM,” DOE believes the definition of “NORM” contained in the preamble to the final rule should be modified to exclude “source, special nuclear and by-product materials (as defined by the AEA).” In addition, DOE suggests that, in the final rule, EPA consider modifying both the preamble definition and the proposed regulatory definition of NORM by replacing the final phrase (which now reads: “usually by mineral extraction or processing activities”) with the words “by human activities.” This change: (1) would clarify that activities enhancing radioactivity and thereby producing NORM are in no way limited to mineral extraction and processing; and (2) would square the RCRA regulatory definition of NORM with other definitions already accepted by EPA. To accomplish these suggested modifications, DOE offers the following possible wording for the definition of NORM [redline font = addition; ~~strikeout~~ font = deletion]:

*Naturally Occurring Radioactive Material (NORM)*, a subset of NARM, refers to materials, **other than source, special nuclear, or byproduct material (as defined by the AEA)** ~~not covered under the AEA~~ whose radioactivity **or potential for exposure** has been ~~enhanced usually by mineral extraction or processing~~ **human** activities.

4. **p. 63466, col. 3 – “Radioactive Waste” is defined as being material that “is generally classified as source, special nuclear, or by-product material, and is exempt from the definition of solid waste at 42 U.S.C. 6903, 40 CFR 261.4(a)(4).”**

The definition of “radioactive waste” presented in the preamble should be redrafted considering the following items:

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<sup>4</sup> *Integrated Data Base Report – 1996: U.S. Spent Nuclear Fuel and Radioactive Waste Inventories, Projections, and Characteristics*; prepared for U.S. DOE; December 1997, DOE/RW-0006, Rev. 13.

- Materials composed entirely of source, special nuclear, and by-product material, as defined by the AEA, are radioactive wastes when discarded and, as such, are fully excluded from the RCRA definition of solid waste [pursuant to RCRA section 1004(27) and 40 CFR 261.4(a)(4)]. Discarded materials composed in part of source, special nuclear, or byproduct material are also radioactive wastes. However, only the material in the mixture that meets the definition of source, special nuclear, or by-product material is excluded from the RCRA definition of solid waste. The remainder of the mixture (i.e., the non-radioactive material) may be regulated under RCRA if it qualifies under 40 CFR 261.3 as a hazardous waste [*EPA/NRC Guidance on the Definition and Identification of Commercial Mixed Low-Level Radioactive and Hazardous Waste and Answers to Anticipated Questions*, October 4, 1989].
- Non-hazardous mixtures of non-hazardous materials and source, special nuclear, or by-product material are typically regulated solely under the AEA.
- Radioactive constituents other than source, special nuclear, or by-product material (e.g., NARM) mixed with non-hazardous materials are not specifically addressed in the AEA, but are regulated by DOE (under general AEA authority to govern its own nuclear operations and facilities), or States (under State laws implementing RCRA and the State’s omnibus authority to protect public health and safety). Such radioactive materials should be included in the preamble’s definition of radioactive waste.

With these considerations in mind, DOE suggests that the definition of “radioactive waste” in the preamble to the final rule be reworded as follows [redline font = addition; ~~strikeout~~ font = deletion]:

*Radioactive waste* – ~~is generally classified as source, special nuclear, or by-product material, and is exempt from the definition of solid waste at 42 U.S.C. 6903, 40 CFR 261.4(a)(4).~~ **means, in this preamble, any discarded material, which is radioactive or contains a radioactive component. If the radioactive material or component is source, special nuclear, or by-product material, as defined by the Atomic Energy Act of 1954, as amended, that material or component is excluded from regulation under the Resource Conservation and Recovery Act, as amended [42 U.S.C. 6903; 40 CFR 261.4(a)(4)].**

DOE supports EPA’s decision to not incorporate a definition of “radioactive waste” into the proposed regulatory language.

## II. Summary of Today’s Action

1. **p. 63467, col. 2 – The preamble states that certain LLMW and eligible NARM waste of NRC licensees may remain exempted from many RCRA requirements through much of the waste management process if such waste qualifies for both the storage and treatment conditional exemption and the transportation and disposal exemption.**

DOE notes that proposed sections 40 CFR 266.225 and 266.335, which together specify the scope of the proposed storage and treatment conditional exemption, expressly designate only low-level mixed waste as being eligible for the storage and treatment exemption. DOE also notes that the proposed definition of “low-level mixed waste” (proposed §266.210) does not encompass NARM waste containing a hazardous waste component. From these observations, DOE infers that the scope of the proposed storage and treatment conditional exemption was not intended to be available to NARM waste containing a hazardous waste

component. This inference is strengthened by the proposed definition of “eligible NARM” (proposed §266.210), which explains that “eligible NARM means NARM that meets the acceptance criteria of a LLRWDF licensed by NRC or an Agreement State in accordance with 10 CFR part 61 and is contaminated by hazardous waste, and *therefore, is eligible for the transportation and disposal conditional exemption* [emphasis added].” Hence, if a summary such as the one appearing at 64 FR 63467, column 2, is provided in the preamble to the final rule, it should avoid suggesting that NARM waste containing a hazardous waste component might be exempted from RCRA requirements throughout the waste management process, unless EPA modifies the proposal so that NARM-contaminated hazardous waste is eligible for the treatment and storage conditional exemption. DOE is aware of no reason to exclude NARM-contaminated hazardous waste being stored in tanks or containers in accordance with either an NRC or Agreement State license or State radiation control requirements from eligibility for the treatment and storage conditional exemption. DOE would support extending the exemption to such wastes, if other conditions of the exemption are appropriately modified to accommodate NARM wastes that are not subject to an NRC or Agreement State license.

## **II.B. What Regulatory Changes Are We Proposing for Transportation and Disposal of LLMW and Eligible NARM?**

1. **p. 63468, col. 2 – The preamble explains that: “Under this exemption, you may not send your conditionally-exempt LLMW or eligible NARM for disposal to a DOE radioactive waste disposal facility.”**

DOE requests that the above-quoted clarification of the scope of the disposal exemption be modified in the final rule to specify that: “Under this exemption, you may not send your conditionally-exempt LLMW or eligible NARM for disposal to a DOE radioactive waste disposal facility that is not licensed by the NRC or an Agreement State.”

## **V. Low-Level Mixed Waste Storage and Treatment**

1. **p. 63470, col. 3 – The preamble states that EPA is proposing a conditional exemption from RCRA Subtitle C requirements for “(1) the on-site storage of low-level mixed waste if specified conditions are met; and (2) the on-site treatment of low-level mixed waste in qualified tanks or containers (40 CFR 262.34).”**
  - a. DOE notes that the ANPRM indicated that EPA was considering a storage conditional exemption, which would be available to LLMW stored in a tank, container, or *containment building* [emphasis added].<sup>5</sup> In the DOE response to the ANPRM, the Department supported including LLMW in containment buildings within the scope of both the proposed storage conditional exemption and the proposed treatment conditional exemption.<sup>6</sup> Notwithstanding, in the NPRM, EPA (without explanation) is proposing that the scope of the storage and treatment conditional exemption cover LLMW in tanks and containers only. DOE requests that EPA reconsider this change from the ANPRM and investigate allowing

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<sup>5</sup> 64 FR 10064, 10066, Section II.A.5 (listing conditions being considered for a LLMW storage conditional exemption) (March 1, 1999).

<sup>6</sup> DOE Comments, “Approach to Reinventing Regulations on Storing Mixed Low-Level Radioactive Waste,” Advance Notice of Proposed Rulemaking (64 FR 10064 - 10073; March 1, 1999), Specific Comment II.A.5, item 1, p. 2 and Specific Comment II.C, item 1, p. 5 (April 15, 1999).

LLMW being stored or treated in containment buildings to qualify for the treatment and storage conditional exemption.

- b. DOE notes that, while the preamble states (as quoted above) that a conditional exemption is proposed for on-site treatment of LLMW in “qualified tanks or containers (40 CFR 262.34),” the proposed regulatory language implementing the on-site storage and treatment exemption (proposed 40 CFR 266.225 and 266.235 [64 FR 63498 and 63499, respectively]) does not require that LLMW be stored in accordance with 40 CFR 262.34 to qualify for the exemption. Proposed 40 CFR 266.225(b) indicates that LLMW is eligible for the storage conditional exemption if, among other things, it is “stored on-site in a tank or container meeting the requirements of your NRC or Agreement State license for storing low-level waste.” Proposed 40 CFR 266.235 states that “Allowable treatment of your low-level mixed waste includes only on-site treatment within a tank or container covered by the provisions of your NRC or Agreement State license.” In light of the difference between the preamble and the proposed regulations, DOE requests that EPA clarify in the preamble of the final rule that compliance with 40 CFR 262.34 is not required to qualify for the storage and treatment exemption.

If EPA determines that, to qualify for the storage and treatment conditional exemption, LLMW must be stored and treated in tanks and containers which comply with 40 CFR 262.34, DOE further requests that EPA specify with which of the six subsections (i.e., (a) through (f)) of §262.34 compliance is required.

#### **V.A What Conditional Exemption for Stored or Treated Low-Level Mixed Waste Are We Proposing?**

1. **p. 63471, col. 1 – EPA proposes to “conditionally exempt LLMW from the regulatory definition of hazardous waste, found in §261.3, while the waste is stored and/or treated on-site. . . . During storage or treatment of conditionally exempted LLMW, the generator will not be required to have a RCRA storage permit for the conditionally exempt waste.”**

DOE requests that the final rule clarify that a generator of LLMW who qualifies for the storage conditional exemption will be exempt not only from the requirement to obtain a RCRA treatment, storage, and disposal (TSD) permit, but also from other RCRA requirements applicable to storage of hazardous waste in tanks and containers. Specifically, as Comment V, item 1.b (above) explains, the preamble language may cause confusion about the applicability of 40 CFR 262.34. If applicable, 40 CFR 262.34(a) would require a generator to meet the following RCRA requirements:

- Comply with 40 CFR 265, Subparts I (Containers) and J (Tanks);
- Comply with 40 CFR 265, Subparts AA (Air Emission Standards for Process Vents), BB (Air Emission Standards for Equipment Leaks), and CC (Air Emission Standards for Tanks, Surface Impoundments and Containers);
- Comply with closure requirements in 40 CFR 265.111 and 265.114;
- Comply with 40 CFR 265, Subpart C (Preparedness and Prevention);
- Comply with 40 CFR 265, Subpart D (Contingency Plan and Emergency Procedures);
- Implement a personnel training program in accordance with 40 CFR 265.16;
- Develop and follow a written waste analysis plan in accordance with 40 CFR 268.7(a)(5); and
- Label tanks and containers with the words “Hazardous Waste,” and mark all tanks and containers with accumulation start dates.

In comparison, the proposed conditions of the storage exemption (see 40 CFR 266.230, p. 63499) would require the generator to:

- Store the waste in a tank or container meeting the requirements of an NRC or Agreement State license;
- Store the waste in compliance with chemical compatibility requirements of a tank or container as specified in 40 CFR 264.177, 264.199, 265.177, or 265.199, as appropriate;
- Certify the personnel have been trained as outlined in 40 CFR 265.16(a)(3);
- Inventory and inspect stored LLMW at specified intervals and keep records for at least three years;
- Maintain an emergency plan containing specified components prepared consistent with 40 CFR part 265, subpart D.

DOE believes the proposed conditions of the storage exemption would adequately defend against releases of exempt waste stored in tanks and containers and, thereby, protect human health and the environment. Since many of the proposed requirements are very similar, or the same as, requirements in 40 CFR 262.34(a), confusion could result if compliance with both is required. Therefore, DOE recommends that the preamble to the final rule clarify that 40 CFR 262.34(a) does not apply.

#### **V.A.1 How Does the Proposal Facilitate Decay-in-Storage?**

1. **p. 63471, cols. 1 & 2 – EPA proposes that the management of LLMW during on-site storage be regulated under NRC’s decay-in-storage requirements and be conditionally exempt from RCRA requirements.**

As stated in the DOE response to the ANPRM,<sup>7</sup> the Department agrees with the general concept of a conditional exemption from RCRA hazardous waste requirements for LLMW during the time needed for short-lived radionuclides to decay to levels no longer requiring regulation. This approach would implement RCRA without placing undue impediments on safe management of the radioactive component of the LLMW. Allowing short-lived radionuclides in LLMW to decay in storage would make subsequent treatment of the hazardous constituents safer because workers handling the waste would receive lower radiation doses. Similarly, transportation of the waste after decay would also be safer. Hence, DOE supports the exemption and believes it would appropriately protect human health and the environment.

#### **V.A.2 For What Time Period is a Storage Exemption Valid?**

1. **p. 63471, cols. 2 & 3 – The preamble explains that EPA is giving consideration to whether a general storage exemption time limit should be imposed. Comments are invited on whether a time limit may be appropriate, and if so, on what basis that time limit might be established.**

DOE suggests that an approach similar to that used for radioactive PCB wastes might be appropriate [see 63 FR 35384, 35413, 35452 (June 29, 1998) (codifying 40 CFR 761.65(a))]. In this approach, the waste must

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<sup>7</sup> DOE Comments, “Approach to Reinventing Regulations on Storing Mixed Low-Level Radioactive Waste,” Advance Notice of Proposed Rulemaking (64 FR 10064 - 10073; March 1, 1999), Specific Comment II.B, item 1, p. 5 (April 15, 1999).

be managed in accordance with applicable federal, State, and local laws and regulations, and an auditable record must be maintained of bona fide attempts to treat/dispose of the wastes (i.e., remove it from storage) on an annual basis, but no specific time limit is imposed. Some mixed wastes do not have available treatment or disposal capacity. Setting time limits would be counterproductive in such cases. However, requiring an auditable record of bona fide attempts to treat/dispose of the wastes and subjecting the owner/operator to the loss of the conditional exemption when these attempts are found to be unacceptable by authorized RCRA agency audits would provide incentive to remove the waste from storage as soon as possible.

2. **p. 63471, col. 3 – EPA states that, under a decay-in-storage scenario, the RCRA storage limit begins when: (1) The radionuclide with the longest half-life in a container has decayed as specified in the license (generally ten half-lives but sometimes fewer half-lives); and (2) the radiation emitted from the unshielded surface of the waste is not above background levels as measured by appropriate monitoring equipment as specified by NRC. The Agency invites comment on how waste being stored for decay under 10 CFR 20.2001(a)(2) and 10 CFR part 35 can be completely decayed while at the same time reenter RCRA Subtitle C without a gap in time during which the waste is not regulated as either hazardous or radioactive.**

DOE notes that, although the NPRM preamble provides the two-pronged definition (as restated above) of the point in time at which the RCRA hazardous waste generator storage limit would become applicable to LLMW undergoing decay-in-storage, the proposed regulatory language [proposed 40 CFR 266.255(a) (64 FR 63499)] defines that point in time differently. According to the proposed regulatory language, the conditional exemption for storage no longer applies at the point in time “when your LLMW has met the requirements of your NRC or Agreement State license for decay-in-storage and can be disposed of as non-radioactive waste.” DOE encourages EPA to finalize the proposed regulatory language in 40 CFR 266.255(a) without modification. DOE believes EPA would minimize the potential for confusion by referencing the NRC license rather than codifying language (such as the two-pronged definition presented in the preamble) intended to be equivalent to the content of an NRC license.

3. **p. 63471, col.3 – EPA explains that under a decay-in-storage scenario, at the point LLMW is no longer subject to NRC regulations “it must be shipped promptly off-site for treatment to meet LDR treatment standards, if needed, and disposed at a RCRA Subtitle C facility.”**

DOE requests clarification in the final rule that LLMW stored in a container at or near its point of generation, that qualifies as a satellite accumulation area under 40 CFR 262.34(c), is not precluded from qualifying for the storage conditional exemption. Furthermore, assuming a container that is a satellite accumulation area may, and does, qualify for the storage conditional exemption, DOE requests that EPA clarify that conditionally exempt LLMW undergoing decay-in-storage in such a container would not have to be “shipped promptly off-site” when it is no longer subject to NRC requirements. As long as the container meets requirements for a satellite accumulation area, the waste should be allowed to remain in the container for any length or time allowed by 40 CFR 262.34(c). In addition, DOE notes that generators are allowed to store waste on-site for up to 90 days without a RCRA permit [40 CFR 262.34(a)]. Even then, generators are not required to ship the stored waste (although a permit would be required) if continued storage is for the purpose of accumulating such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal, and the generator complies with the requirements in 40 CFR 262.34 and 40 CFR parts 264 and 265 [40 CFR 268.50]. Therefore, DOE suggests that in the final rule EPA not indicate that LLMW “must be shipped promptly off-site” when it is no longer subject to NRC regulations. Instead, EPA should clarify that conditionally exempt LLMW undergoing decay-in-storage is considered to be a newly

generated hazardous waste (for the purpose of calculating any applicable storage time limits under RCRA) at the point it is no longer subject to NRC regulations.

**V.B. What is Our Low-Level Mixed Waste Storage and Treatment Proposal?**

**V.B.2 What Conditions Must You Meet as a Generator?**

- 1. p. 63472, col. 2 – In section V.B.2(b) of the preamble, EPA requests comment on whether the specificity of the proposed RCRA exemption condition requiring compliance with NRC license provisions for storing low-level mixed waste should be increased by limiting the condition to compliance with the kinds of NRC requirements that, if violated, may result in endangerment of human health and the environment.**

DOE agrees that loss of the conditional exemption seems to be too severe a penalty for noncompliance with provisions of the NRC or Agreement State license that are unrelated to reducing the likelihood of hazardous constituent releases to the environment, or that are merely administrative in nature. DOE suggests that EPA craft conditions for the RCRA exemption such that noncompliance with NRC standards and license requirements that are unrelated to reducing the likelihood of hazardous constituent releases to the environment, or that are merely administrative in nature, do not result in loss of the conditional exemption. Specifically, DOE encourages EPA to consider an implementation approach with aspects similar to those described below. DOE also advanced this implementation approach in the DOE response to the ANPRM.<sup>8</sup>

- DOE suggests that a designated condition of the exemption be that the facility hold a valid NRC or Agreement State license. EPA should then rely on the NRC or the responsible Agreement State to enforce the specific provisions of the valid license.
- Using this approach, noncompliance with any particular NRC or Agreement State license provision would not result in loss of the conditional exemption, unless such noncompliance resulted in revocation of the license. Hence, noncompliance with requirements that are unrelated to reducing the likelihood of hazardous constituent releases to the environment, or that are merely administrative in nature, would not result in loss of the conditional exemption.
- DOE further suggests that another designated condition of the exemption be that the facility report to EPA, or the responsible State agency, any NRC or Agreement State license violation (determined to have occurred by NRC or the responsible Agreement State) that resulted in an actual release to the environment of LLMW, or that has created a substantial threat of such release. The contents of the report should include a description of corrective measures imposed by NRC or the Agreement State.
- Using this approach, failure to report violations of NRC or Agreement State license requirements that have significance with respect to protection of human health and the environment would result in loss of the conditional exemption. Furthermore, through the report, EPA or the responsible State agency could assess the adequacy of the corrective measures imposed by NRC or the Agreement State relative to addressing releases of non-radioactive chemicals. If such measures were deemed inadequate, EPA or the responsible State agency could impose additional chemical cleanup requirements pursuant to RCRA §7003.

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<sup>8</sup> DOE Comments, “Approach to Reinventing Regulations on Storing Mixed Low-Level Radioactive Waste,” Advance Notice of Proposed Rulemaking (64 FR 10064 - 10073; March 1, 1999), Specific Comment III.A, item 1, p. 6 (April 15, 1999).

2. **p. 63472, col. 3 & p. 63473, col. 2 – In section V.B.2(c), the preamble states that commercial mixed waste processing facilities will not be eligible for the proposed storage and treatment conditional exemption for wastes received from their customers. However, EPA requests comment on whether the proposed conditional exemption for storage should be extended to facilities that own/operate storage units that do not meet the Agency’s current definition of “on-site” (e.g., off-site commercial TSD facilities) and/or to mixed waste treatment facilities that manage wastes from other generators.**

As was stated in the DOE response to the ANPRM,<sup>9</sup> the Department does not believe the location of the storage unit (on-site versus off-site) should determine whether stored LLMW qualifies for a conditional exemption from RCRA hazardous waste requirements. As discussed in the preamble to this NPRM (64 FR 63470), the court held in *Military Toxics Project v. EPA*, 146 F. 3rd 948 (D.C. Cir. 1998), that where a waste might pose a hazard only under limited management scenarios, and other regulatory programs already address such scenarios, EPA is not required to classify such waste as hazardous waste subject to regulation under RCRA Subtitle C. LLMW being treated or stored in tanks or containers poses a hazard only under management scenarios in which releases of the LLMW from the treatment or storage unit would be likely. Therefore, if EPA determines that a non-RCRA regulatory program (e.g., NRC or Agreement State licensing program), either alone or in combination with other legally imposed requirements, addresses such scenarios for LLMW in storage, then EPA is not required to classify the stored LLMW as hazardous waste.

DOE believes that NRC and Agreement State licensing programs in combination with certain other requirements, would adequately address scenarios in which licensed treatment or storage of LLMW could pose a hazard to human health or the environment. Hence, DOE agrees that EPA is justified, under the holding in *Military Toxics Project v. EPA*, in granting a conditional exemption for treatment and storage of LLMW at NRC- or Agreement State-licensed facilities. Furthermore, DOE submits that EPA would be justified in extending the proposed conditional storage exemption to include facilities that own/operate storage units that do not meet the Agency’s current definition of “on-site” (e.g., off-site commercial TSDFs) and/or to mixed waste treatment facilities that manage wastes from other generators. Unless EPA has evidence indicating that storage units located at such NRC- and Agreement State-licensed storage facilities are more likely than units located at licensed on-site storage facilities to release LLMW, having an on-site location should not be a requirement to qualify a licensed storage unit for the proposed conditional exemption. Just because an off-site facility holds a RCRA permit, in addition to its NRC or Agreement State license does not mean the facility (and its clients) would not benefit from eligibility for the proposed conditional exemption.

3. **p. 63472, col. 3 – In section V.B.2(c), EPA proposes that one condition of the storage and treatment conditional exemption be that candidate LLMW be generated “on-site” at the facility seeking the exemption. EPA explains that, for this purpose, the Agency considers LLMW to be generated “on-site” if it can be moved without a RCRA manifest from a storage unit at the point of generation to another storage/accumulation area which is owned or operated by the same generator (with the same RCRA ID number). EPA requests comment on the definition of “on-site,” and on whether the storage conditional exemption should include a storage facility that serves as a consolidation point for a single entity.**

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<sup>9</sup> DOE Comments, “Approach to Reinventing Regulations on Storing Mixed Low-Level Radioactive Waste,” Advance Notice of Proposed Rulemaking (64 FR 10064-10073; March 1, 1999), Specific Comment II.A.6, item 1, pp. 3-4 (April 15, 1999).

DOE believes that at geographically large facilities it is not unusual for regulators to assign different RCRA generator ID numbers to multiple generating sites at the facility, even though such sites meet the RCRA definition of “on-site” [40 CFR 260.10] with respect to each other. In such cases, DOE supports deeming LLMW from all generating sites within the facility as having been generated “on-site,” even though the sites may have different RCRA generator ID numbers. DOE also supports allowing a storage facility that serves as a consolidation point for LLMW at such a facility to qualify for the storage conditional exemption. Similarly, DOE supports allowing a storage facility that serves as a consolidation point for LLMW generated by a single entity at noncontiguous property locations to qualify for the storage conditional exemption.

4. **p. 63473, col. 1 – In sections V.B.2(e), (f), and (g) of the preamble, EPA explains that conditions of the proposed conditional storage exemption will include certification that facility personnel have been appropriately trained, documentation that periodic inventories and inspections have been completed, and maintenance of an accurate emergency contingency plan.**

As was explained in comment V.A, item 1 (above), the applicability of 40 CFR 262.34 is unclear. DOE recommends that the final rule clarify that 40 CFR 262.34(a) does not apply. Compliance with the conditions of the exemption as proposed in 40 CFR 266.230 (64 FR 63499), including §§266.30(e), (f), and (g), which are discussed in preamble sections V.B.2(e), (f) and (g), should be adequate.

#### **V.B.6. Can Your Exemption be Reclaimed if You Fail to Meet a Condition?**

1. **p. 63474, col. 1 – EPA explains that the proposed storage and treatment conditional exemption will be lost automatically at the time the generator fails to comply with the conditions of the exemption.**

DOE is concerned that without further clarification and guidance, the self implementing nature of a loss of exemption could result in confusion associated with managing affected LLMW during the period between identification/self-disclosure of a loss of the conditional exemption and reinstatement. In a manner similar to the Department’s suggestion in response to the ANPRM,<sup>10</sup> DOE recommends that EPA consider provisions in the final rule that would expressly make reinstatement retroactive to the date on which the facility lost its conditional exemption, if the application for reinstatement demonstrates that the facility was returned to compliance within a specified maximum length of time (e.g., 90 days) and that no release of LLMW occurred in connection with the loss of exemption.

### **VI. Transportation and Disposal Conditional Exemption For Mixed Waste and Eligible NARM**

#### **VI.B Applicability of the Proposal**

##### **VI.B.1 To What Types of Waste Does This Rule Apply?**

1. **pp. 63477, col. 3 & 63478, col. 1 – EPA proposes to include eligible NARM in the transportation and disposal conditional exemption at the request of a state agency**

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<sup>10</sup> DOE Comments, “Approach to Reinventing Regulations on Storing Mixed Low-Level Radioactive Waste,” Advance Notice of Proposed Rulemaking (64 FR 10064-10073; March 1, 1999), Specific Comment III.A, item 2, pp. 6-7 (April 15, 1999).

**regulating the radioactive material. EPA requests comments concerning the applicability of the conditional exemption to eligible NARM.**

DOE supports including eligible NARM within the scope of the transportation and disposal conditional exemption.

**VI.C What is the Point of Exemption?**

- 1. p. 63478, cols. 1 & 2 – The preamble reports that EPA proposes to exempt LLMW or eligible NARM from RCRA Subtitle C requirements “once the generator has met all pre-transport requirements under §266.315.”**

DOE believes the language quoted above in the preamble could lead to confusion regarding the scope of the transportation and disposal conditional exemption because its focus on actions of the “generator” is inconsistent with the proposed regulatory language. As the proposed regulatory text for §266.305 (p. 63499) explains, “the conditional exemption for transportation and disposal gives you — *the mixed waste generator, treater, or other handler* — an alternate way to manage your low-level mixed waste.” [emphasis added] Therefore, DOE requests that, in the final rule, EPA clarify that, as the regulatory text states, the transportation and disposal conditional exemption is available to generators, treaters, or other handlers of LLMW or eligible NARM.

- 2. p. 63478, cols. 1 & 2 – EPA proposes to make the point of exemption for the transportation and disposal conditional exemption the point at which the waste is placed on the transportation vehicle bound for disposal at an NRC- or Agreement State-licensed LLRWDF.**

DOE operates large facilities at which off-site waste shipments take place from one or more centralized staging areas. DOE believes that management of waste packages in such staging areas would be unnecessarily complicated if the point of exemption for the transportation and disposal conditional exemption were defined as the point at which the waste is placed on the transportation vehicle. Currently, waste packages are inspected in the staging areas to ensure proper labeling. Also, appropriate manifests are prepared while the waste packages are in the staging area, before they are loaded for shipment. DOE anticipates that after the proposed conditional exemption becomes final, preparation for shipment of waste packages containing conditionally exempt waste would also require removal of RCRA labels and affixing of DOT labels. Manifests covering conditionally exempt waste packages would have to be prepared to reflect the RCRA-exempt status of such waste packages. If the point of exemption did not occur until a waste package had been placed on a transportation vehicle, DOE is concerned that label changes would have to await placement of the waste package into the transportation vehicle. As a result, management of waste packages in the staging area could be complicated. Hence, DOE requests that EPA consider including in the final regulations an alternative point of exemption for facilities where centralized waste staging areas are used. For example, the alternative point of exemption could be the point of entry into the staging area.

- 3. p. 63478, col. 2 – The preamble states that a shipment of conditionally exempt waste “must not go to any other facility en route to the designated LLRWDF, other than a transfer facility meeting the requirements of 40 CFR 263.12.”**

DOE’s Oak Ridge Reservation contains multiple LLMW generating sites at three separate facilities. With no additional risk to human health or the environment, a transporter could pick up conditionally exempt waste from each of the DOE Oak Ridge Reservation facilities for shipment to the same designated LLRWDF. This would benefit both the transporter and the facilities. DOE requests that EPA clarify that

the requirement that a “shipment must not go to any other facility en route to the designated LLRWDF” would not prevent such consolidated shipments from facilities such as the Oak Ridge Reservation facilities.

#### **VI.D. Implementation and Enforcement**

##### **VI.D.4. Can Your Exemption be Reclaimed if You Fail to Meet a Condition?**

- 1. p. 63479, col. 2 – EPA proposes a self-implementing process for reclaiming a transportation and disposal conditional exemption when you return to compliance with all conditions in §266.315. Under this approach, the lost exemption would be reinstated immediately upon filing a notice of reclamation containing specified information. However, if the Agency subsequently found that reinstatement was inappropriate, the conditional exemption could be terminated. EPA requests comments on an alternative approach. Under the alternative scheme, there would be a 90-day waiting period from the date on which a reclamation notice was filed until reinstatement was final. The waiting period would allow the regulatory agency time to confirm that the violation has been corrected and is not likely to recur.**

DOE generally opposes a 90-day waiting period before reinstating a transportation and disposal exemption, unless the responsible regulatory agency is explicitly required to inspect, confirm that the infraction has been corrected, and notify the applicant that the exemption is reinstated within the waiting period. In addition, DOE suggests that, if the responsible regulatory agency fails to respond to an application for reinstatement of a transportation and disposal conditional exemption within the 90-day waiting period, the exemption should be automatically reinstated, retroactive to the date of the application. DOE is concerned that, if the responsible regulatory agency is not required to investigate and act on an application for reinstatement within the 90-day waiting period, issues of budget, regulatory priorities, and work load of the responsible regulatory agency, could delay reinstatement of the conditional exemption beyond 90 days, while the applicant awaits regulatory agency action. This would be a disincentive for generators, treaters, and other waste handlers to seek the conditional exemption in the first place, because they would have to be ready to return to full RCRA compliance immediately for at least 90 days, and possibly longer. On the other hand, without a waiting period, generators would be motivated to correct the noncompliance that resulted in the loss of conditional exemption as quickly as possible in order to minimize penalties and return to exempt operations. If the responsible regulatory agency later found that the generator had failed to properly correct the noncompliance, an enforcement action could be initiated for the entire period of noncompliance. This should provide adequate incentive for generators, treaters, and other waste handlers to properly correct the noncompliance.

If EPA decides a waiting period is needed, DOE requests that consideration be given to establishing an implementation strategy with features similar to those described below.

- Establish the length of the waiting period (e.g., 30, 60, or 90 days) on a case-specific basis depending on the severity of the noncompliance leading to loss of the exemption.
- Expressly require the responsible regulatory agency to act on applications for reinstatement of the conditional exemption, either affirming or denying the applications, within the waiting period.
- If the responsible regulatory agency fails to respond to an application for reinstatement of a transportation and disposal conditional exemption within the waiting period, the exemption should be automatically reinstated, retroactive to the date of the application.

#### **VI.E What Conditions Must You Meet Prior to Claiming the Transportation and Disposal Exemption?**

**VI.E.1 Why Are We Requiring LDR Treatment?**

**VI.E.1.a What are the existing RCRA LDR treatment requirements for various types of LLMW?**

- 1. pp. 63480, col. 3 & 63481, col. 1 – EPA explains that under current LDR requirements, hazardous soils contaminated with radioactivity may be treated to meet either treatment standards derived from the original waste codes, or alternative treatment standards. EPA requests comment on whether, for any reason, the transportation and disposal conditional exemption should apply only to hazardous soils treated to meet treatment standards derived from the original waste codes.**

DOE is aware of no reason for excluding hazardous soils treated to meet the alternative treatment standards from the scope of the transportation and disposal conditional exemption. Hence, DOE supports allowing hazardous soils treated to meet LDR treatment standards to qualify for the transportation and disposal conditional exemption, regardless of whether the LDR treatment standards that such soils meet are derived from the original waste codes, or are the alternative treatment standards established in 40 CFR 268.49.

**VI.E.3 What Are the Conditions for Manifesting and Transporting the Exempted Waste?**

**VI.E.3.a Why is it appropriate to manifest and transport the RCRA-exempted mixed waste only according to NRC, or an Agreement State’s manifest and transportation requirements?**

- 1. p. 63482, col. 3 – EPA proposes to conditionally exempt from RCRA transportation requirements LLMW or eligible NARM which has been treated to meet LDR treatment standards and which “remains subject to NRC or Agreement State’s manifest regulations.”**

DOE does not object to a condition requiring that treated LLMW be shipped in the manner specified by NRC or Agreement State transportation and manifest regulations in order for the waste to qualify for the conditional transportation and disposal exemption. However, DOE objects to any formulation of such a condition which would imply that DOE LLMW becomes “subject to” NRC or Agreement State transportation and manifest regulations as a result of the condition. Therefore, DOE suggests that EPA avoid language in both the preamble and regulatory text of the final rule indicating, as does the language now appearing in the NPRM (p. 63482, col.3 (preamble) and p. 63499, col. 3 (40 CFR 266.305)), that DOE LLMW which qualifies for the transportation and disposal conditional exemption becomes subject to NRC or Agreement State transportation and manifest regulations. To accomplish this in the regulatory text of the final rule, DOE suggests the following modifications to the proposed wording of 40 CFR 266.305 [redline font = addition; ~~strikeout~~ font = deletion]:

The conditional exemption for transportation and disposal gives you — the mixed waste generator, treater, or other handler — an alternative way to manage your low-level mixed waste. If this waste meets Land Disposal Restrictions treatment standards, **is shipped in the manner specified by NRC or Agreement State regulations applicable to transportation and manifesting, and is subject to NRC or Agreement State disposal regulations** ~~and is subject to NRC or Agreement State’s transportation, manifest and disposal regulations~~, it will be exempted from RCRA Subtitle C hazardous

waste manifest, transportation and disposal regulations. Currently, low-level mixed waste meeting LDR treatment standards must be managed in accordance with both NRC or Agreement State's and RCRA Subtitle C's transportation, manifest and disposal regulations. To obtain and keep the Transportation and Disposal Conditional Exemption, you must meet all conditions under the Transportation and Disposal Conditional Exemption at all times.

**VI.F. What is EPA's Site-Specific, Risk-Based Variance Alternative for Disposal?**

1. **p. 63484, cols. 2 & 3 – As an alternative to the proposed conditional disposal exemption, EPA requests comments on a State-approved, site-specific, risk-based disposal approach. Under this alternative approach, the regulated community would work directly with States to establish exemption levels for disposal in a particular LLRWDF of hazardous waste contaminated with radioactivity. The exemption levels would be developed using the risk target level specified by EPA and would be based on specific characteristics of the disposal site. This approach could be pursued by States, an owner/operator of a LLRWDF, or a consortium of generators of LLMW or eligible NARM.**

DOE supports development of an alternative approach whereby dual regulation of LLMW and NARM-contaminated hazardous waste could be reduced through State-approved, site-specific, risk-based variances from RCRA requirements for qualifying LLMW. DOE believes such a site-specific variance approach would offer a useful regulatory alternative in States where DOE facilities are located with respect to the management and disposition of certain DOE-generated LLMW. Furthermore, this approach seems to have a greater potential to address the regulatory burden on DOE-generated LLMW than the conditional transportation and disposal exemption being proposed in the NPRM.

DOE is confident that the protectiveness of LLRWDFs complying with DOE directives in disposing treated LLMW can be demonstrated. Therefore, the Department encourages EPA and the States to pursue development of a regulatory structure within which this protectiveness could be demonstrated and recognized on a site-specific basis. In this regard, DOE understands the preference of States for any new regulatory structure to retain an oversight role for States similar to the rule RCRA currently imparts. Therefore, DOE is willing to work with the States and EPA to fashion a workable approach that serves the purpose of reducing DOE's regulatory burden in managing LLMW while maintaining a meaningful State regulatory oversight role. DOE recognizes that public participation would be an integral part of the process whereby any State would incorporate such a site-specific approach into its regulatory program. Public participation would also be required before a responsible State agency could grant a site-specific variance.

Based on its recent experience with the State of Nevada at the Nevada Test Site, DOE envisions that a meaningful partnership agreement with a State could be fashioned for situations in which site-specific, risk-based variances from RCRA requirements are granted for management of certain LLMW in a DOE facility.

**VI.G. How Did we Conduct our Technical Assessment for the Disposal of Treated Waste at Low-Level Radioactive Waste Disposal Facilities?**

**VI.G.2. What Was the Technical Assessment we Conducted?**

**VI.G.2.b. How were the sites evaluated?**

**VI.G.2.b.v How is the protection of ground water against chemical release at LLRWDFs addressed in this proposal?**

- 1. p. 63488, col. 2 – EPA solicits comments on whether groundwater monitoring for chemical releases at the LLRWDF should be a condition for the transportation and disposal exemption.**

DOE agrees with the statement in the NPRM that “Because of the unique nature of mixed wastes, migration of hazardous constituents does not occur except in the presence of radionuclides.” [64 FR 63475, col. 2] Since groundwater monitoring required by an NRC or Agreement State license would detect radionuclides, DOE believes that groundwater monitoring in accordance with an NRC or Agreement State license, should be adequate to warn of possible releases of non-radioactive chemicals at a conditionally exempt disposal facility, and thereby protect human health and the environment. Furthermore, since compliance with the NRC license is a condition of the exemption, it should not also be necessary to require groundwater monitoring for chemical releases as a condition of the exemption.

**VIII. State Authorization**

- 1. p. 63492, cols. 1 & 2 – EPA explains the RCRA provisions for State authorization that apply to the regulations proposed in the NPRM, and encourages States to adopt the proposed conditional exemptions.**

DOE suggests that the preamble to the final rule include a discussion of the status of the transportation conditional exemption for mixed waste during interstate transport through States that do not adopt the final rule. An example of such a discussion appears in section VI.C of the preamble to the notice of final rulemaking which accompanied the EPA Hazardous Waste Lamps rule (64 FR 36466, 36482; July 6, 1999).

**IX. Relationship With Other RCRA and Environmental Programs**

**IX.A. What is the Relationship of This Proposal With Other RCRA Regulatory Programs?**

**I.X.A.5. Will the Proposed Rule Change How the RCRA Closure Requirements Apply to My Disposal Facility?**

- 1. p. 63492, col. 3 – EPA explains that if a disposal facility subject to NRC regulations accepts conditionally exempt mixed waste from a generator who has violated the conditions for exemption, the disposal cell where the exempted waste has been placed for permanent disposal may become a RCRA regulated Subtitle C unit subject to the requirements of 40 CFR 264 or 265, including closure requirements, which normally require closure to be complete within 180 day after receiving the final volume of hazardous waste.**

DOE requests that EPA clarify in the final rule whether *all* generator violations that result in loss of the transportation and disposal conditional exemption would trigger the RCRA closure requirement. Such an approach seems excessive, and would likely be a significant disincentive for LLW disposal facilities to accept conditionally exempt LLMW. Nevertheless, for situations involving loss of the conditional exemption as a result of violating either the requirement to meet LDR treatment standards (§266.315(a)) or the requirement to ensure that exempt waste is properly containerized (§266.315(d)), the approach may be warranted.

## Proposed Regulatory Language for 40 CFR Part 266, Subpart N

**40 CFR 266.220 through 266.255 – Regulatory language is proposed for implementing a conditional exemption from the definition of hazardous waste for LLMWs while they are treated or stored on-site, in a tank or container, subject to an NRC or Agreement State license.**

DOE suggests that EPA generally review and improve the clarity of the regulatory language in proposed 40 CFR 266.220 through 266.255. Specific clarifications are requested below for some of the least clear passages.

**1. p. 63499, col. 1 – 40 CFR 266.230(d).**

Based on the discussion in the preamble (p. 63472, col. 3) and the definitions in proposed 40 CFR 266.210, DOE believes that EPA intended 40 CFR 266.230(d) to require notification of the RCRA Program Agency (EPA or the state agency authorized to implement the RCRA program), rather than EPA.

**2. p. 63499, cols. 1 & 3 – 40 CFR 266.230(f) and 266.250.**

- a. Proposed 40 CFR 266.230(f), which establishes conditions to qualify for the storage conditional exemption, and 266.250, which specifies record keeping requirements, contain similar provisions. DOE suggests that, to avoid the potential for inconsistency, EPA modify §266.230(f) to read as follows [redline font = addition; ~~strikeout~~ font = deletion]:

(f)(1) Inventory your stored low-level mixed waste at least annually; **and** inspect it at least quarterly for compliance with the other conditions of **this** the paragraph. ~~update your inventory records of conditionally exempt LLMW quarterly; and maintain records for three years after the waste is sent for disposal, or in accordance with NRC requirements, whichever is longer.~~

**(2) Keep and maintain records as specified in §266.50.**

In addition, §266.250 should be modified to read as follows [redline font = addition; ~~strikeout~~ font = deletion]:

You must keep your initial notification records and records of your LLMW inventories and inspections. ~~At a minimum you must inventory waste annually, inspect quarterly, and~~ **You must** update your records of conditionally exempt LLMW at least quarterly. You must maintain storage records for three years after the waste is sent for disposal, or in accordance with NRC requirements under 10 CFR part 20, whichever is longer.

- b. EPA should also consider clarifying in §266.250 which records require quarterly updates.

**3. p. 63499, col. 2 – 40 CFR 266.240.**

DOE suggests that 40 CFR 266.240 be modified to explain the difference, if any, in the consequences of failure to comply with “requirements” of the storage and treatment conditional exemption compared to failure to comply with “conditions.” For example, proposed 40 CFR 266.380 provides such an explanation in the case of the transportation and disposal conditional exemption. The Department makes this suggestion

because proposed 40 CFR 266.245(b) indicates that “we” (see item #7, below, regarding the definition of “we”) may add “requirements” to the exemption.

**4. p. 63499, col. 2 – 40 CFR 266.240(b).**

Section 266.240(b) provides that “You automatically lose your exemption for failure to meet any of the conditions (See §266.230).” As Specific Comment V.B.2, item 1 (above) explains, DOE suggests that EPA develop conditions for the RCRA exemption such that noncompliance with NRC standards and license requirements that are unrelated to reducing the likelihood of hazardous constituent releases to the environment, or that are merely administrative in nature, does not result in loss of the conditional exemption. Hence, DOE further suggests that EPA change §266.240(b), as appropriate, to be consistent with any modifications adopted in response to Specific Comment V.B.2, item 1.

**5. p. 63499, col. 2 – 40 CFR 266.240(c).**

Proposed 40 CFR 266.240(c) is confusing regarding the agencies that must be notified in the event of failure to meet a condition of the storage conditional exemption. According to the first sentence, EPA (assuming that “us” has the same definition as is given for “we” in proposed §266.210) and either NRC or an Agreement State must be notified after a generator learns of failure to meet a condition. However, according to the second sentence, if that same failure may endanger human health or the environment, the generator must notify EPA or the RCRA program agency.

**6. p. 63499, col. 2 – 40 CFR 266.245(a)(2).**

DOE suggests that EPA consider whether the pronouns “we” and “us” have been used in 40 CFR 266.245, and throughout the proposed Part 266, Subpart N, consistently with the definition of “we” given in 40 CFR 266.210.

**7. p. 63499, col. 3 – 40 CFR 266.255(b).**

Proposed 40 CFR 266.255(b) states that waste transported off-site for any reason “other than to a LLRWDF under the Disposal Conditional Exemption” is no longer eligible for the Storage Conditional Exemption. DOE suggests that the proposed 40 CFR 266.255(b) be revised as follows [**redline** font = addition; ~~strikeout~~ font = deletion]:

(b) When your waste is transported off-site for any reason ~~other than to a LLRWDF under the Disposal Conditional Exemption at §266.305~~, it is no longer eligible for the Storage Conditional Exemption. **However, waste transported off-site may qualify for the Transportation and Disposal Conditional Exemption provided in §§266.305 through 266.385.**

**40 CFR 266.315(a)**

- 1. p. 63500, col. 1** – DOE requests clarification of the phrase “continue to meet” in proposed 40 CFR 266.315(a), which would require, as a condition of exemption, that an exempt waste “meet and continue to meet LDR treatment standards.”

**40 CFR 266.340**

1. **p. 63500, col. 3** – DOE has the following concerns about the requirement in proposed 40 CFR 266.340 that the generator submit to all parties notified under 40 CFR 266.330 changes in any information contained in the original notice.
  - With regard to the numerical information (i.e., quantity of each waste stream and estimates of average monthly, maximum monthly, average annual, and maximum annual quantities), the magnitude of quantity changes requiring re-notification is unclear. DOE suggests that a de minimis change (e.g., 10 percent) be established, below which notification is not necessary.

#### **40 CFR 266.365(a)**

1. **p. 63500, col. 3** – To address interim status facilities, DOE suggests that proposed 40 CFR 266.365(a) be revised as follows [**redline** font = addition; ~~strikeout~~ font = deletion]:

You must keep records as follows:

- (a) You must continue to follow existing applicable record keeping requirements under §§264.73, **265.73** and 268.7 of this chapter in order to demonstrate that your waste has met LDR treatment standards prior to your claiming the exemption.

#### **40 CFR 266.380**

1. **p. 63501, col. 2** – Because the preamble and other sections of the proposed regulations discuss a “transportation and disposal” conditional exemption rather than a “manifest, transportation, and disposal” exemption, DOE suggests that, throughout proposed § 266.380, references to a “manifest, transportation, and disposal” conditional exemption be changed to refer to a “transportation and disposal” conditional exemption.