

# **LOW-LEVEL RADIOACTIVE WASTE FORUM, INC.**

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## ***U.S. Nuclear Regulatory Commission (NRC)***

### **NRC to Conduct Very Low-Level Radioactive Waste Scoping Study**

On February 14, 2018, the U.S. Nuclear Regulatory Commission (NRC) issued a *Federal Register* notice announcing the agency's plans to conduct a very low-level radioactive waste (VLLW) scoping study to identify possible options to improve and strengthen the NRC's regulatory framework for the disposal of the anticipated large volumes of VLLW associated with the decommissioning of nuclear power plants and material sites, as well as waste that might be generated by alternative waste streams that may be created by operating reprocessing facilities or a radiological event. (See 83 *Federal Register* 6,619 dated February 14, 2018.)

As part of the process, the NRC is seeking stakeholder input and perspectives. Respondents are asked to consider specific questions posed by the NRC staff and other federal agencies in the *Federal Register* notice. Comments are due by May 15, 2018. Comments considered after this date will be considered if it is practical to do so, but the NRC is only able to ensure consideration of comments received on or before the deadline.

On February 22, 2018, NRC will hold a public meeting to discuss the VLLW scoping study and concerns associated with the disposal of Greater-than-Class C (GTCC) waste. (See LLW Forum News Flash titled, "NRC to Host Public Meeting re Very Low-Level Radioactive Waste Scoping Study and Disposal of Greater-than-Class C Waste: Agency Headquarters in Rockville, Maryland on February 22, 2018," dated February 12, 2018.) The meeting will be held from 9:00 a.m. to 3:00 p.m. in the auditorium at the agency's headquarters in Rockville, Maryland. Interested stakeholders may participate via webinar or teleconference.

### **Specific Request for Comment**

The NRC is interested in receiving comments from a broad range of stakeholders including professional organizations, licensees, Agreement States and members of the public. Likewise, interested stakeholders with insight into relevant international initiatives are invited to provide their perspectives regarding international best practices related to VLLW disposal or other experiences that the NRC staff should consider. All comments will be considered and the results of the scoping study will be documented in a

publicly available report, which will inform the Commission of the staff's recommendation for addressing VLLW disposal.

All comments that are to receive consideration in the VLLW Scoping Study must be submitted electronically or in writing. Respondents are asked to consider the background material (see below) when preparing their comments. In responding, commenters are encouraged to provide specific suggestions and the basis for suggestions offered. Specifically, the NRC staff requests comment on the following questions:

1. The United States does not have a formal regulatory definition of VLLW. What should the NRC consider in developing its own regulatory definition for VLLW? Is there another definition of VLLW that should be considered? Provide a basis for your response.
2. The existing regulatory framework within 10 CFR 61.55 divides low-level radioactive waste into four categories: Class A, Class B, Class C, and GTCC. Should the NRC revise the waste classification system to establish a new category for VLLW? What criteria should NRC consider in establishing the boundary between Class A and VLLW categories?
3. The NRC's alternative disposal request guidance entitled, "Review, Approval, and Documentation of Low- Activity Waste Disposals in Accordance with 10 CFR 20.2002 and 10 CFR 40.13(a)," which is undergoing a revision, allows for alternative disposal methods that are different from those already defined in the regulations and is most often used for burial of waste in hazardous or solid waste landfills permitted under the Resource Conservation and Recovery Act (RCRA). Should the NRC expand the existing guidance to include VLLW disposal or consider the development of a new guidance for VLLW disposal? Why or why not?
4. If the NRC were to create a new waste category for VLLW in 10 CFR Part 61, what potential compatibility issues related to the approval of VLLW disposal by NRC Agreement States need to be considered and addressed? How might defining VLLW affect NRC Agreement State regulatory programs in terms of additional responsibilities or resources?
5. Following the Low-Level Radioactive Waste Policy Amendments Act of 1985, states formed regional compacts for the disposal of low-level radioactive waste. If the NRC were to create a new waste category for VLLW, does it fall within regional compact authority to control VLLW management and disposal? How might defining VLLW affect regional compacts in terms of additional responsibilities or resources?
6. U.S. Environmental Protection Agency (EPA)-imposed waste analysis requirements for facilities that generate, treat, store and dispose of hazardous wastes are defined in 40 CFR Parts 264 through 270. How would NRC incorporate and apply waste analysis requirements for VLLW at RCRA Subtitle C and D facilities? Should the NRC impose concentration limits and/or treatment standards for VLLW disposal?

7. Are there any unintended consequences associated with developing a VLLW waste category?
8. What analytical methods/tools should be used to assess the risk of disposing of VLLW at licensed low-level radioactive waste disposal facilities or RCRA Subtitle C and D facilities — i.e., generic or site- specific?
9. How should economic factors be considered in the VLLW scoping study?

### **Public Meeting**

To facilitate the understanding of the public and other stakeholders of the issues and the submission of comments, the NRC staff has scheduled a public meeting for February 22, 2018. The meeting will be held from 9:00 a.m. to 3:00 p.m. EST in the NRC's Two White Flint Auditorium at 11545 Rockville Pike, Rockville, Maryland.

Interested stakeholders participating via webinar will be able to view the presentation slides prepared by the NRC staff and electronically submit comments over the internet. Participants must register to participate in the webinar. The registration information to participate in the public meeting via the webinar may be found in the meeting notice at <https://www.nrc.gov/pmns/mtg?do=details&Code=20180033>. The meeting notice can also be accessed through the NRC's public website under the headings Public Meetings & Involvement at <https://meetings.nrc.gov/pmns/mtg>.

The NRC staff will also post the meeting notice on the federal rulemaking website at <http://www.regulations.gov> under Docket ID NRC-2018-0026. The NRC staff may post additional materials related to this document, including public comments, on the federal rulemaking website. The federal rulemaking website allows you to receive alerts when changes or additions occur in a docket folder. To subscribe, interested stakeholders should navigate to the docket folder (NRC-2018-0026); click the "Sign up for Email Alerts" link; and, enter your email address and select how frequently you would like to receive emails (daily, weekly, or monthly).

The final agenda for the public meeting will be posted no fewer than 10 days prior to the meeting date. Interested stakeholders that are unable to participate in person or via webinar may choose to participate via teleconference by dialing the bridge number (800) 857-9840 and entering the pass code 4975456.

### **Submitting Comments**

Interested stakeholders may submit comments by any of the following methods:

- Federal Rulemaking website: Go to <http://www.regulations.gov> and search for Docket ID NRC-2018-0026. Address questions about NRC dockets to Jennifer Borges at (301) 287-9127 or at [Jennifer.Borges@nrc.gov](mailto:Jennifer.Borges@nrc.gov).

- Mail comments to: May Ma, Office of Administration, Mail Stop: OWFN-2- A13, U.S. Nuclear Regulatory Commission, Washington, DC 20555- 0001.

### **Obtaining Information**

Interested stakeholders should refer to Docket ID NRC-2018- 0026 when contacting the NRC about the availability of information for this action. Stakeholders may obtain publicly-available information related to this action by any of the following methods:

- Federal Rulemaking website: Go to <http://www.regulations.gov> and search for Docket ID NRC-2018-0026.
- NRC's Agencywide Documents Access and Management System (ADAMS): Publicly-available documents may be obtained online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at (800) 397-4209, (301) 415-4737, or by email to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).
- NRC's PDR: Copies of public documents may be examined and purchased at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

### **Background**

In 2007, following developments in the national program for low-level radioactive waste disposal, as well as changes in the regulatory environment, the NRC conducted a strategic assessment of its regulatory program for low-level radioactive waste. The results of this assessment were published in late 2007 in SECY-07-0180, "Strategic Assessment of Low-Level Radioactive Waste Regulatory Program." The strategic assessment identified the need to coordinate with other agencies on consistency in regulating low activity waste (LAW) disposal and to develop guidance that summarizes disposition options for low-end materials and waste.

In 2016, the NRC staff conducted a programmatic assessment of the low-level radioactive waste program to identify and prioritize tasks that the NRC could undertake to ensure a stable, reliable and adaptable regulatory framework for effective low-level radioactive waste management. The results of this assessment were published in October 2016 in SECY-16-0118, "Programmatic Assessment of Low-Level Radioactive Waste Regulatory Program." The programmatic assessment identified the need to perform a LAW scoping study as a medium priority.

In International Atomic Energy Agency (IAEA) Safety Guide No. GSG- 1, "Classification of Radioactive Waste," the IAEA defines VLLW as waste that does not

meet the criteria of exempt waste, but does not need a high level of containment and isolation and is therefore suitable for disposal in a near surface landfill type facility with limited regulatory control. The NRC currently does not have a formal regulatory definition for VLLW, nor has it adopted the IAEA definition. However, the NRC uses the term VLLW consistent with the international regulatory structure. In general, the NRC considers VLLW as material containing some residual radioactivity, including naturally occurring radionuclides that may be safely disposed of in hazardous or municipal solid waste landfills.

The LAW scoping study, which was later renamed the VLLW scoping study, will combine several tasks initially defined in the 2007 strategic assessment into one. These tasks include:

- coordinating with other agencies on consistency in regulating LAW;
- developing guidance that summarizes disposition options for low-end materials and waste; and,
- promulgating a rule for disposal of LAW.

As part of the scoping study, the NRC will also evaluate regulatory options that would define the conditions under which LAW, including mixed waste, could be disposed of in Resource Conservation and Recovery Act (RCRA) Subtitle C hazardous waste facilities. Consistent with SECY-16-0118, the NRC is conducting this VLLW Scoping Study, which will consider disposal of waste as defined by 10 CFR Part 61 as the isolation, by emplacement in a land disposal facility, of radioactive wastes from the biosphere that is inhabited by man and that contains his food chains. As such, the scoping study will not address non-disposal related disposition pathways including unrestricted release, clearance, reuse or recycle of materials.

The purpose of the VLLW scoping study is to identify possible options to improve and strengthen the NRC's regulatory framework for the disposal of the anticipated large volumes of VLLW associated with the decommissioning of nuclear power plants and waste that might be generated by alternative waste streams that may be created by fuel reprocessing or a radiological event. Additionally, the NRC plans to evaluate regulatory options that could define the conditions under which VLLW, including mixed waste, could be disposed of in RCRA hazardous waste facilities.

*For additional information, please contact Maurice Heath of the NRC's Office of Nuclear Material Safety and Safeguards (NMSS) at (301) 415-3137 or at [Maurice.Heath@nrc.gov](mailto:Maurice.Heath@nrc.gov).*

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**February 16, 2018**

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