

# **Proposed Interpretive Rule: Transfer of Very Low-Level Waste (VLLW) to Exempt Persons for Disposal**

**July 1, 2020**

**The meeting will start shortly.**

**Please join the audio conference by calling:**

**1-888-452-8947 - access code 9838788#**

# Proposed Interpretive Rule: Transfer of Very Low-Level Waste (VLLW) to Exempt Persons for Disposal

**July 1, 2020**

**Trish Holahan, Ph.D.**

Director

Division of Decommissioning,  
Uranium Recovery, and Waste Programs  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission

# Purpose of Meeting

- Describe the purpose of and approach to disposal of very low-level radiological waste (VLLW) under the proposed interpretation of 10 CFR 20.2001.
- Solicit public feedback on the proposed interpretive rule.

## What we are proposing

Expanding the definition of “authorized recipient” in NUREG-1736 to include persons who have received specific exemptions that allow them to dispose of VLLW by burial.

Allowing safe, permanent disposal by burial of material at sites that have regulatory oversight.

Using site-specific criteria for the disposal of VLLW by burial at non-Part 61 sites that will not result in the development of legacy sites.

Planning to work with other regulatory bodies to develop criteria for evaluating an exemption request.

## What we are not proposing

**NOT** developing new regulations related to the disposal of radioactive waste.

**NOT** approving the release of VLLW into unregulated disposal sites.

**NOT** reintroducing the concepts of “clearance” or “below regulatory concern,” or making material available for reuse.

**NOT** requiring additional regulatory agencies to take responsibility for the oversight of disposed VLLW.

# Addressing Stakeholder Feedback

- Proposal to expand the interpretation of § 20.2001 has been an ongoing process
- The *Federal Register* Notice (FRN) announcing the proposal was published on March 6, 2020; comment period ends on July 20, 2020
- Efforts made to facilitate public involvement:
  - Added an additional email address for comments
  - Two public meetings
  - Extended the public comment period

# What is VLLW?



- Class A waste with the lowest level of activity, containing some residual radioactivity, including naturally occurring radionuclides, which may be safely disposed of in hazardous or municipal solid waste landfills. There is no formal regulatory definition of VLLW.
- Examples: some incinerator ash from research facilities, demolition debris, soil, and garbage.

# Current VLLW Disposal Options

## Land Disposal Facilities

- A licensed land disposal facility allowed to “receive, possess, and dispose of radioactive waste” on its site.
- Currently, there are 4 licensed facilities in the United States; all 4 are located in Agreement States and licensed by their respective state regulatory agency.



# Current VLLW Disposal Options (cont'd)

## Part 20, Subpart K, "Waste Disposal"

- § 20.2001(a)(1) allows transfer for disposal to an "authorized recipient."
- § 20.2002 provides a method for obtaining approval of proposed alternate disposal procedures.
- The proposed interpretation of § 20.2001(a)(1) would enable disposal facilities to apply for a specific exemption under § 30.11, § 40.14, and § 70.17 that would allow the facility to be considered an "authorized recipient."



# Adam Schwartzman

Risk Analyst  
Risk and Technical Analysis Branch  
Division of Decommissioning,  
Uranium Recovery, and Waste Programs  
Office of Nuclear Material  
Safety and Safeguards  
U.S. Nuclear Regulatory Commission

# VLLW Disposal Options – What Would Change?

- Expand the options available for disposing of VLLW to include transfers to waste disposal facilities not licensed, but specifically exempted to receive radioactive waste for the purpose of disposal by burial.
- Does not affect any other disposal method authorized under the NRC's regulations, including § 20.2002.
- The proposed change would result in a revision to current guidance documents related to VLLW disposal.

# Review Process - Becoming an Authorized Recipient

Disposal site submits a request to the NRC with specific details for review and consideration (**cumulative** dose should not exceed 25 mrem/yr at any time during facility operation or closure).



NRC evaluates the submittal and, if it satisfies the specific exemption criteria, issues an exemption from licensing to accept VLLW for disposal by burial.

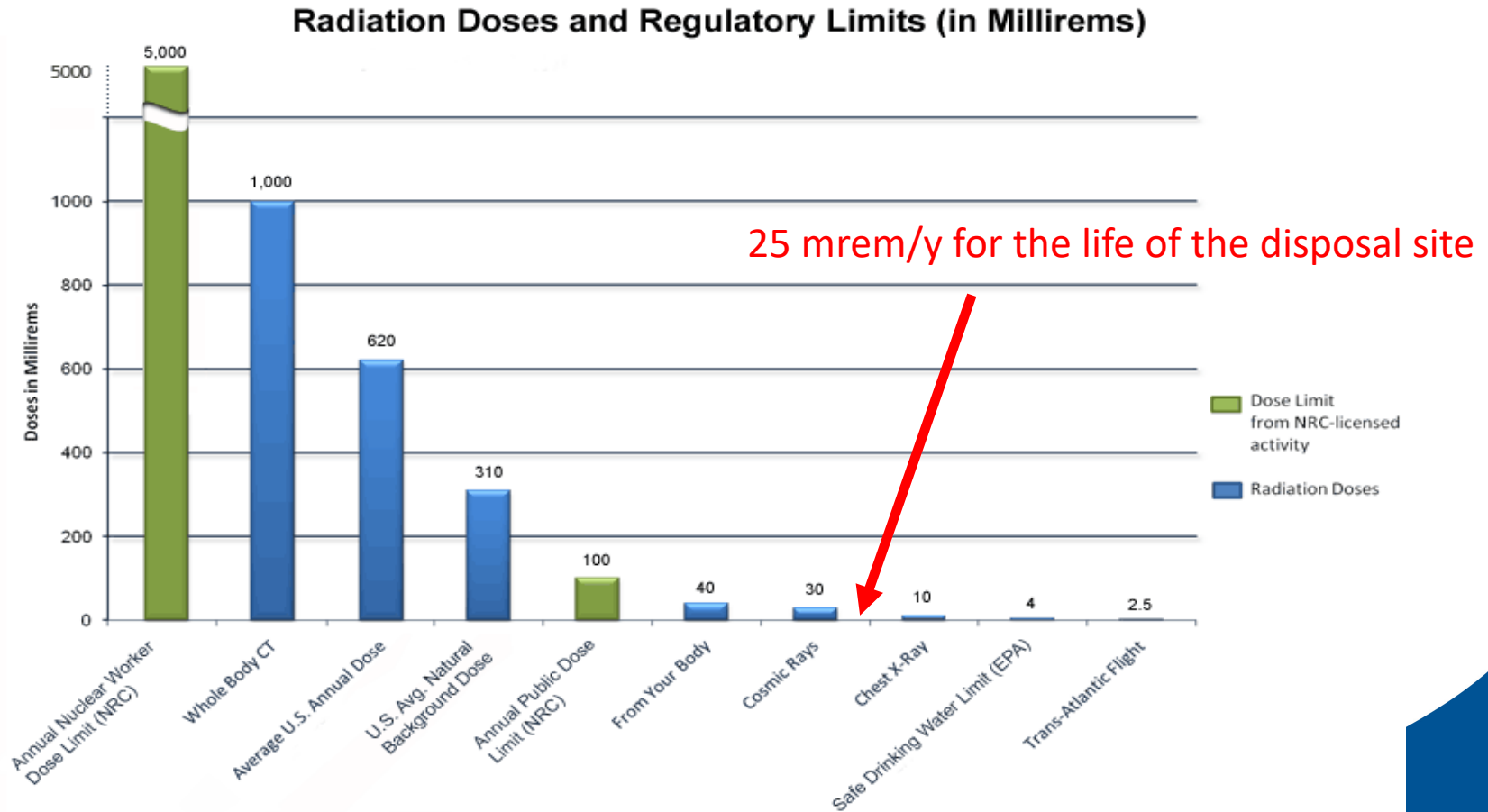


Disposal site, as an “authorized recipient,” can now accept VLLW for disposal by burial without additional case-by-case reviews and approvals, provided the disposals are within the exemption criteria.

# 25 mrem/year in Context

## Doses in our Daily Lives

<https://www.nrc.gov/about-nrc/radiation/around-us/doses-daily-lives.html>



# What Does it Take to Receive an Exemption for Disposal of VLLW?

- The exemption application should include a safety analysis for NRC review containing:
  - Description of material that would be accepted for disposal (i.e., volumes, specific radionuclides, concentrations, etc.).
  - Description of additional regulatory requirements related to the operation of the facility (e.g., acceptable processes and procedures, recordkeeping, etc.).

# What Does it Take to Receive an Exemption to Dispose of VLLW? (cont'd)

- Proposed method(s) of burial.
- Timeframe for accepting VLLW.
- Site-specific dose assessment (w/ sensitivity and uncertainty analyses); to include specific conceptual and/or mathematical models and related parameter values used to estimate radiological impacts to members of the public (which includes workers at the disposal site).

# Evaluating Specific Exemption Requests (What Does the NRC Do?)

- Performs the review and develops a safety evaluation supporting its decision.
- Prepares an environmental analysis of the requested exemption, as required by the National Environmental Policy Act (NEPA) and NRC's NEPA regulations.
- Agreement States may establish more restrictive values under their own regulatory authority.

**ACCEPTED**

**REJECTED**

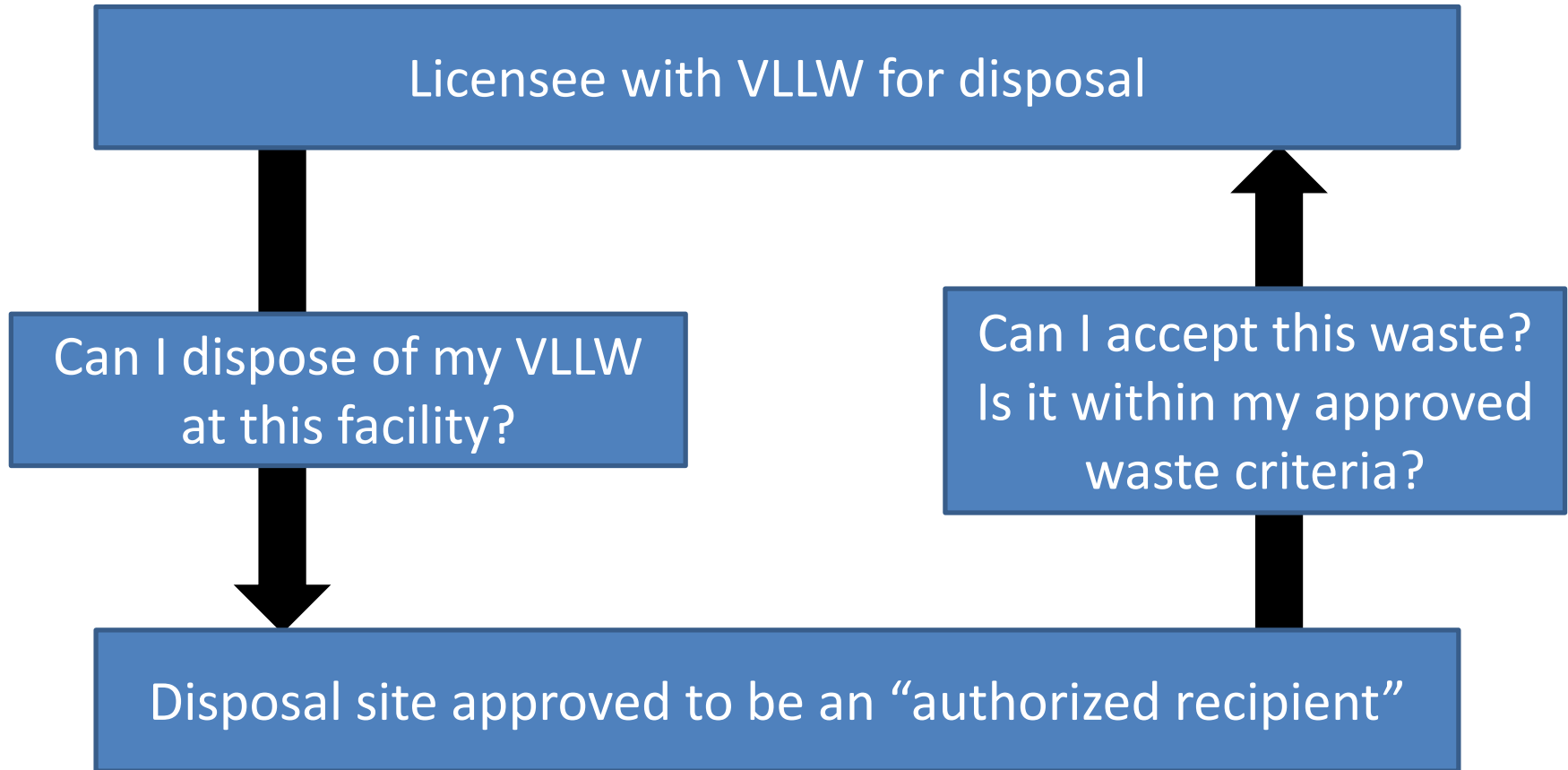
# Hypothetical Example of the Process

## **XYZ Landfill wants to be an “authorized recipient”**

- Submits exemption request for review and approval.
- NRC reviews and, if appropriate, approves an exemption for XYZ Landfill to dispose of specific types and amounts of VLLW by burial without a license.
- XYZ Landfill is now considered an “authorized recipient” under § 20.2001(a)(1).



# Hypothetical Example of the Process (cont'd)



# Proposed Outcome

- The NRC will continue to protect public health and safety and the environment by:
  - Developing a more efficient review process.
  - In a manner that allows additional flexibility to waste generators to dispose of VLLW.



# FRN Public Feedback Questions

1. Is case-by-case review and approval of VLLW transfers to holders of specific exemptions for disposal necessary?
2. What issues associated with transboundary transfer of VLLW should be considered with this interpretive rule?
3. Should the exempt persons authorized to dispose of certain VLLW that would be considered § 20.2001 “authorized recipients” under this proposed interpretive rule be required to use Uniform Waste Manifests (consistent with § 20.2006) for waste transferred to the exempted disposal facility?
4. Are there other criteria that should be considered during the review of a request for a specific disposal exemption?
5. In light of this proposed interpretive rule, does the Agreement State compatibility designation (Compatibility Category C) of § 20.2001 raise issues that the NRC should consider?

# How to Provide Comments

- FRN (85 FR 13076; March 6, 2020) provides various methods of submitting comments
- Include Docket ID **NRC-2020-0065** on all correspondence
- Email: [VLLWTransferComments.Resource@nrc.gov](mailto:VLLWTransferComments.Resource@nrc.gov)
- Comment period ends July 20, 2020

# Meeting Ground Rules

- Please respect other members of the public.
- Please be conscious of your speaking time.
- Consider submitting your comments in the WebEx Q/A window or chat box.

# How to Make a Comment During the Meeting

- You can type in your comment at any time using the WebEx interface.

– or –

- Make your comment verbally by pressing \*1 (“star” “one”) and waiting for the operator to open your line.
  - Do not have your phone on mute when requesting to speak.

# *Public Feedback and Comment Session*

# Receive NRC LLW Information

- Sign-up for the LLW email distribution (ListServ) using the following steps:
  - go to the NRC's public website and select “Public Meetings & Involvement”
  - select “Subscribe to Email Updates”
  - select “Lyris Subscription Services” and check the box for “LLW Distribution”
  - enter the email address through which you want to receive the NRC Listserv emails
  - click on “Subscribe”



# In Summary

- This proposal provides an alternate way to dispose of some VLLW in hazardous and municipal waste landfills instead of licensed facilities for radioactive waste.
- All unlicensed disposal facilities will receive a detailed technical review by the regulator before receiving an exemption from the licensing requirements, and thereby be approved to become an “authorized recipient.”
- All VLLW accepted by an “authorized recipient” must be within the envelope specified in the exemption.

## What we are proposing

Expanding the definition of “authorized recipient” in NUREG-1736 to include persons who have received specific exemptions that allow them to dispose of VLLW by burial.

Allowing safe, permanent disposal by burial of material at sites that have regulatory oversight.

Using site-specific criteria for the disposal of VLLW by burial at non-Part 61 sites that will not result in the development of legacy sites.

Planning to work with other regulatory bodies to develop criteria for evaluating an exemption request.

## What we are not proposing

**NOT** developing new regulations related to the disposal of radioactive waste.

**NOT** approving the release of VLLW into unregulated disposal sites.

**NOT** reintroducing the concepts of “clearance” or “below regulatory concern,” or making material available for reuse.

**NOT** requiring additional regulatory agencies to take responsibility for the oversight of disposed VLLW.