U.S.NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment

Briefing on proposed revisions to 10 CFR Part 61 and Low-Level Waste Disposal

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Opening Remarks

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Executive Director for Operations

Purpose

Provide an overview of ongoing Low-Level Waste (LLW) Disposal Activities with emphasis on the 10 CFR Part 61 rulemaking

At a Glance

- **Disposal of Large Quantities of Depleted Uranium**
- **Unanalyzed Waste Streams**
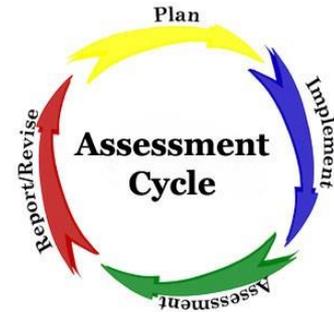- **Concentration Averaging**
- **Waste Manifest Reporting**

At a Glance

- LLW Strategic Assessment
- Byproduct Material Financial Assurance
- Greater Than Class C LLW

Office of Nuclear Material Safety and Safeguards

Scott Moore, Deputy Director

Recent Activities and Near Term Successes

- **Revised Branch Technical Position on Concentration Averaging and Encapsulation**

- **Phantom 4 Regulatory Issue Summary**

- **LLW Strategic Assessment**

Objective

To discuss the Low-Level Waste Program with a focus on the proposed revisions to the low-level radioactive waste disposal regulations.

Why is this rulemaking needed?

To ensure that LLW streams that significantly differ from those LLW streams considered in developing the current 10 CFR Part 61 regulatory basis can be disposed of safely.

Which LLW facilities would be covered by the proposed rule?
Commercial LLW Sites in the U.S.
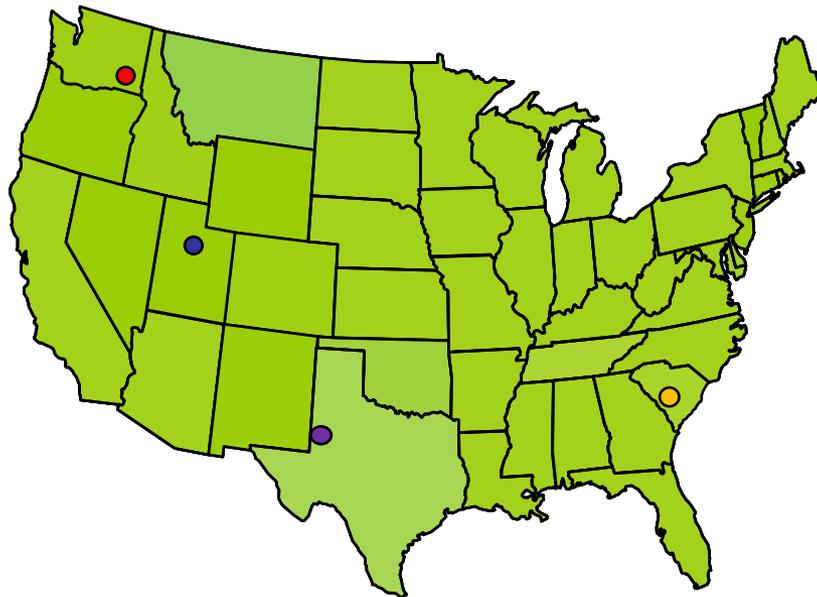
Operating Facility	Waste	Compact Restrictions
US Ecology (Hanford) in Richland, WA	A, B, C 🔴	11 Western states in 2 LLW Compacts only
Energy Solutions at Clive, UT	A only 🔵	None, all US generators OK (Compacts must approve)
Energy Solutions at Barnwell, SC	A, B, C 🟡	SC, NJ, CT only (Atlantic Compact)
Waste Control Specialists in Andrews County, Texas	A, B, C 🟣	Texas and VT only (Texas Compact can authorize out of compact waste disposal)

What is the rationale for this rulemaking?

Need to address:
- **Depleted uranium**
- **LLW from DOE operations**
- **Blended LLW**
- **Waste forms/volumes**
- **Unexpected LLW waste streams from new technologies**

Division of Decommissioning, Uranium Recovery, and Waste Programs, NMSS

Larry W. Camper, Director

Major changes in the proposed rule

- 1,000 year compliance period
- Inadvertent Intruder analysis
- Protective Assurance analysis
- Analysis for performance period beyond 10,000 years

Major changes in the proposed rule

- **Safety Case/Defense in depth**
- **Updated technical analyses at closure**
- **Site Specific Waste Acceptance Criteria**
- **Compatibility Changes**

What are the timeframes and dose limits for the analyses?
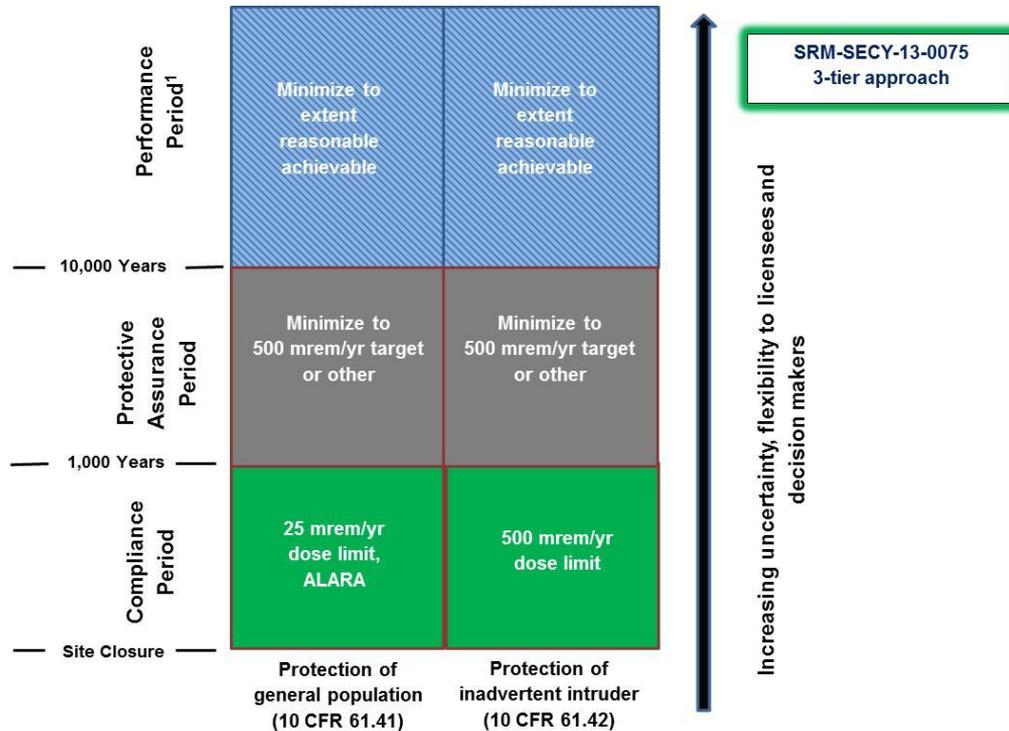
¹ Only applicable if concentrations on a facility-averaged basis are above 10 CFR 61.13(e) Table A

SRM-SECY-13-0075

Staff solicited stakeholder input on the:

- **Proposed three-tiered approach**

- **Analytical threshold (500mrem) for the protective assurance period**

SRM-SECY-13-0075

Staff solicited stakeholder input on the:

- **Quantitative goal-- dose limits for the performance period analysis**
- **Compatibility category B**

Stakeholder Feedback:

- **Compatibility Category**
- **Three Tiered Approach Complexity**
- **Changes to Performance Objectives**

Stakeholder Feedback:

- **Supplemental Environmental Impact Statement**

- **Consultations with Native American Tribes**

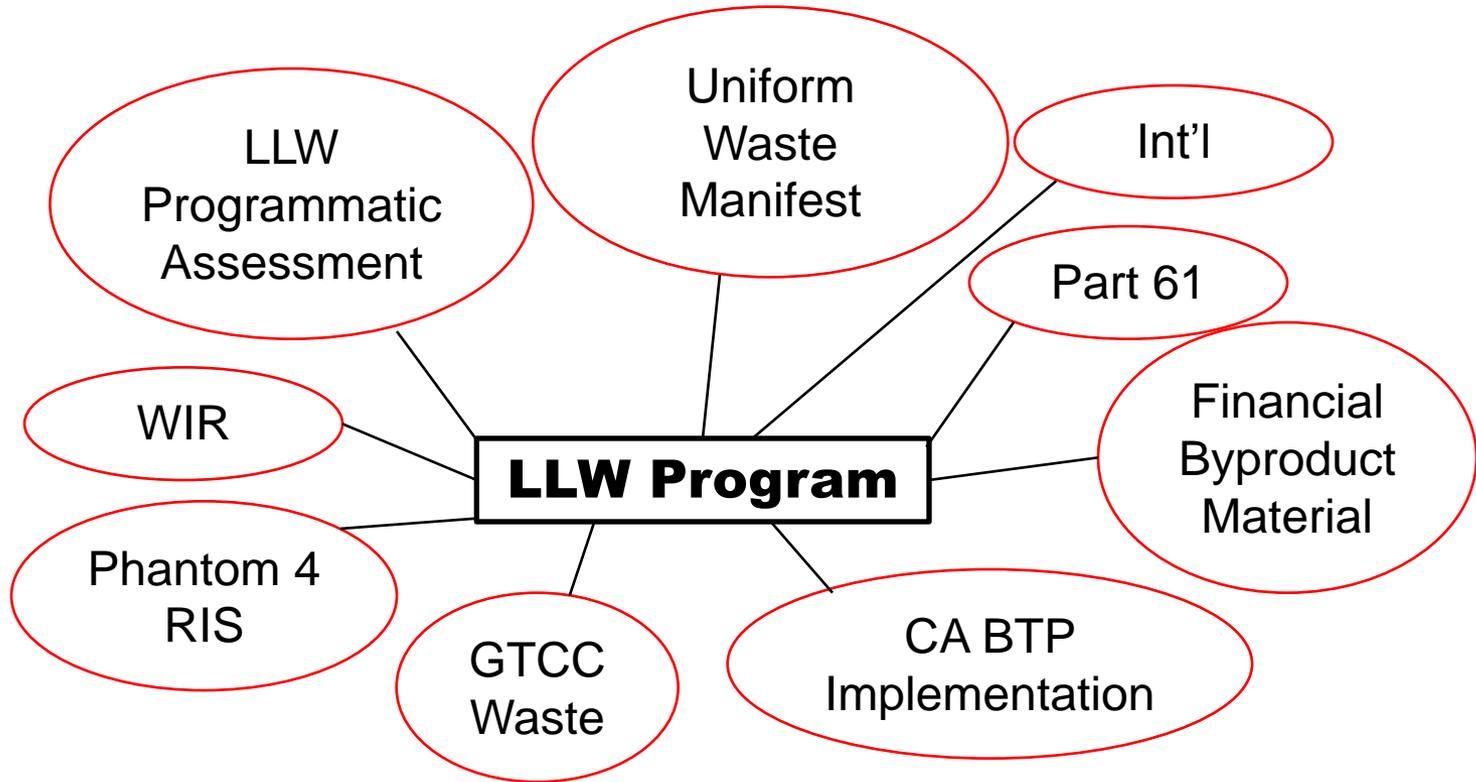- **Data supporting a Performance Assessment**

Stakeholder Feedback:

- **Operating Site Applicability**
- **Introducing Subjectivity**

Path Forward:

- **Analyze comments and develop responses**
- **Engage Agreement States**
- **Interactions with ACRS**
- **NUREG 2175**
- **Final Rule**

LLW Program Overview

ACRONYMS

- **ACRS: Advisory Committee on Reactor Safeguards**
- **CA BTP: Concentration Averaging and Encapsulation Branch Technical Position**
- **CFR: Code of Federal Regulations**
- **DOE: Department of Energy**
- **GTCC: Greater Than Class C**
- **Int'l: International**
- **LLW: Low Level Waste**
- **Mrem: Millirem**
- **NMSS: Office of Nuclear Material Safety and Safeguards**
- **RIS: Regulatory Information Summary**
- **SRM: Staff Requirements Memorandum**
- **WIR: Waste Incidental to Reprocessing**