Hot Topics in US Commercial LLW Management: Emerging Issues in NRC's LLW Regulatory Program

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Outline

Present NRC's LLW Program with a focus on:

- Programmatic Assessment completed by the NRC staff
- Ongoing Part 61 Rulemaking
- Greater Than Class C (GTCC) and Transuranic Waste Disposal
- Financial Assurance for Radioactive Byproduct Material
- Very Low-Level Waste (VLLW) Scoping Study



Overview Part 61

Rulemaking

Next Part 61 Rulemaking?

Uniform Waste **Manifest**

International

LLW

Programmatic Assessment

Very Low-Level Waste **Program**

CA BTP Implementation

GTCC and **Transuranic** Waste

Financial Assurance for Radioactive **Byproduct Material**

Waste Incidental to Reprocessing (WIR)



LLW PROGRAMMATIC ASSESSMENT

Purpose: To address the constantly evolving

nature of LLW issue

Status:

- Draft list of 14 tasks was published in the Federal Register on March 13, 2015
- Comment period expired on April 13, 2015
- Staff evaluated comments received
- Results of staff's assessment have been presented to the Commission in an information SECY paper (SECY-16-0118, ADAMS Accession No. ML15208A305)





LLW Programmatic Assessment Results & High Priority Tasks

- 1. Complete and implement Site-Specific Analysis Rulemaking
- Address update to the 10 CFR Part 61 Waste Classification Tables
- 3. Implement the updated Concentration Averaging and Encapsulation BTP
- Prepare a regulatory basis and conduct potential rulemaking for GTCC and transuranic waste disposal
- 5. Finalize internal procedure/Standard Review Plan for 10 CFR § 20.2002 requests to improve alternate disposal process
- Update NUREG/BR-0204, Rev. 2 (July 1998), "Instructions for Completing NRC's Uniform Low-Level Radioactive Waste Manifest"



10 CFR Part 61 Rulemaking

Status

Commission Approved Proposed Rule Proposed
Rule and
Associated
Draft
Guidance
Issued

Final Rule to Commission

SECY-16-0106: ML16188A290

2/12/14

3/26/15

9/15/16



Major Changes in the Proposed 10CFR Part 61 Final Rule

- Analyses Timeframe
- Defense-in-Depth
- Intruder scenarios
- Compatibility
- Grandfathering
- Move some details to guidance



Activities Related to GTCC and Transuranic Waste Disposal

January 30, 2015 - Texas Letter July 17, 2015 -SECY-15-0094 December 23, 2015 -Commission's Direction in SRM-SECY-15-0094 February 25, 2016 -Final EIS for the Disposal of GTCC and GTCC-Like Waste

February 18, 2011 - Draft Environmental Impact Statement (EIS) for the Disposal of GTCC and GTCC-Like Waste



GTCC: Next Steps

Complete
Ongoing
Part 61
Rulemaking

Prepare
Regulatory
Basis with
Public
Workshops

Possible
Part 61 Rule
for GTCC
and
Transuranic
Waste
Disposal



Background

- NRC's regulatory threshold in 10 CFR 30.35 for providing decommissioning financial assurance is higher than most Category 1 and 2 radioactive sealed sources (RSSs)
- For sources below the threshold, there is no requirement for financial assurance for decommissioning or end-oflife financial planning
- This does not relieve the licensee from the responsibility of proper end-of-life management
- Financial burden may be significant



Scoping Study

- Tasking arose from a September 2014 Commission briefing on radioactive waste issues.
- Purpose was to determine if additional financial planning requirements for some radioactive byproduct material, particularly RSSs, are needed.
- Federal Register Notice announcing the scoping study issued in August 2015.
- Public meeting and webinar held at NRC headquarters in October 2015.
- Scoping study is documented in SECY-16-0046 (ADAMS Accession No. ML16067A367) dated April 7, 2016.



Results

- The NRC staff recommended rulemaking to expand the financial assurance requirements in 10 CFR 30.35 to include all byproduct material Category 1 and 2 RSSs tracked in the National Source Tracking System
- This recommendation focuses on RSSs with the highest risk significance. Staff believes these additional requirements:
 - Should reduce the likelihood that some licensees will be unprepared for end-of-life disposition costs
 - May help reduce the use of long-term storage as a management option
 - Would complement NRC's existing regulatory framework



Path Forward

- The NRC staff prepared a rulemaking plan to further evaluate potential changes to 10 CFR 30.35. This plan is documented in SECY-16-0115 (ADAMS Accession No. ML16200A223) dated October 7, 2016.
- The Commission will decide whether to approve the staff's recommendation to initiate rulemaking after reviewing the rulemaking plan SECY paper





VLLW Scoping Study Considerations

- Divergent stakeholder comments
- The need for an enhanced and more consistent approach for regulating VLLW
- Coordination with other agencies
- Long-term VLLW disposal actions
- The impact of VLLW disposal following a radiological dispersal device (RDD) event
- Lessons learned from regulatory precedents
- VLLW disposal in other countries



Stakeholder Outreach

- Updated information on VLLW found on NRC Website:
 - https://www.nrc.gov/waste/llw-disposal.html
- Public meeting on March 10, 2017, following Waste Management Symposia
- Anticipate public meeting in Summer 2017 to obtain comments on scoping study



VLLW Scoping Study Possible Results

- Rulemaking
- Additional guidance documents
- More coordination with other agencies
- Further analysis needed
- No action



Questions?



