

10 CFR Part 61 LLRW Regulatory Management Issues

Chip Cameron, Facilitator

NRC Public Meeting
Rockville, MD

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Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental
Management Programs

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Site-Specific Analysis Rulemaking

- Limited Scope Effort to Amend 10 CFR Part 61
 - Introduce an explicit performance assessment requirement
 - Comports with Commission's 1995 PRA Policy Statement
 - Approach consistent with SECY-08-0147
- Initial Rulemaking Proposal
 - Performance assessment required to meet §61.41
 - 20,000-year period of performance (quantitative)
 - Post 20,000-year evaluation to peak dose
 - Intruder assessment to meet §61.42
 - 500 mrem dose limit to intruder



Site-Specific Analysis Rulemaking (continued)



- Additional Commission Direction
 - Flexibility to use current International Commission on Radiological Protection (ICRP) dose methodologies
 - Two-tiered period of performance:
 - Tier 1: Compliance period covering reasonably foreseeable future
 - Tier 2: Longer period based on site characteristics and peak dose to a designated receptor, that is not *a priori*
 - Flexibility to establish site-specific waste acceptance criteria based on the results of the site’s performance assessment and intruder assessment
 - Balance Federal-State alignment and flexibility

Site-Specific Analysis Public Interactions



LOCATION	2012 DATE	EVENT
Phoenix	March 2	NRC-Sponsored Public Meeting #1 (following WM2012 Meeting)
San Francisco	April 23	LLW Forum Spring Meeting
Orlando	May 7	CRCPD/OAS Annual Meeting
Dallas	May 15	NRC-Sponsored Public Meeting #2
Tucson	June 22	EPRI Annual LLW Meeting
Rockville	July 19	NRC-Sponsored Public Meeting #3



Key Takeaways From Previous Meetings



- Need for Part 61 Rulemaking Crosswalk
- Expanded Coordination with Agreement States
- Don't Pursue SECY-10-0165 at This Time



Key Takeaways From Previous Meetings (cont.)

- **Consider Other Revisions to Part 61**
 - Update 61.55 classification tables
 - Extend duration of institutional controls
 - Revisit Part 20, Appendix G manifest reporting requirements
 - GTCC disposal criteria
 - LAW disposal criteria



Key Takeaways From Previous Meetings (cont.)

- NRC Consistency with Current Federal Radiation Guidance
- Availability of Draft Rule Text and Guidance
- Separate Regulatory Treatment of DU
- Consider DOE's Approach to Conducting PA's



Today's Meeting Focus

- Time of Compliance (TOC) for LLW Facilities
- Implementation of Waste Acceptance Criteria (WAC)
- Public Policy Issues Related to Part 61 Revisions



Next Steps for Rulemaking



- **Public Comments:**
 - July 31, 2012
- **Regulatory Basis Development:**
 - September 30, 2012
- **DRAFT Proposed Rule Language:**
 - December 2012
- **Rulemaking Package Due to Commission:**
 - July 2013
- **Public Meeting – Guidance Document:**
 - After July 2013; Date TBD



Other Commission Direction

- Budget for Risk-Informing Waste Classification Tables
- Determine Classification of Depleted Uranium
- Seek Stakeholder Input on SECY-10-0165

Further communication with Commission





QUESTIONS?



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Time of Compliance Panel

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TOC Panelists



Name	Title	Affiliation
Mick Apted	Principal Scientist	INTERA
Paul Black	Chief Executive Officer	Neptune and Company
Dave Esh	Senior Systems Performance Analyst	NRC/FSME
Marty Letourneau	Senior Technical Advisor	DOE/EM
Rusty Lundberg	Director, UT Division of Radiation Control	State of Utah
Tim McCartin	Sr Level Advisor for Performance Assessment	NRC/NMSS
Rob Rechard (remote)	Principal Member of Technical Staff	Sandia National Laboratories

TOC Panel Topics

- What is the role/purpose of a PA in the evaluation of a radwaste disposal system?
- How does TOC factor into that role?
- What considerations should come into play in defining the TOC?
- Should NRC prescribe other limits to reduce the impacts associated with uncertainty at longer times? If so, what types of limits should be considered?
- Commission direction was to consider a two-tiered approach to period of performance, the first tier which covers a reasonably foreseeable period and a second tier which considers peak dose to a designated receptor.
 - Is a two-tiered approach appropriate? If so, what form should it take?
 - Should the first tier **cover** a reasonably foreseeable period or be **limited** to a reasonably foreseeable period?
 - What is a reasonably foreseeable period?
 - As originally envisioned the staff, the period of performance used a two-tiered approach (up to 20,000 year compliance period; performance period with no dose limits, designed to show long term performance of the system). Should the second tier have dose limits? If so, what?
- Should site-specific analyses determine the period of performance (e.g. period of performance is undefined in regulation)? If so, how would the suboptimum site and suboptimum design problem be handled (e.g. a poorly performing site [more dispersive] may be assigned a shorter period of performance compared to a better performing site)?
- What level of protection should be provided to future generations? Is there a limit (e.g. a period of time) after which there is not an obligation to protect future generations?

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Waste Acceptance Criteria Panel

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WAC Panelists



Name	Title	Affiliation
Brad Broussard	Health Physicist	State of Texas
Jhon Carilli	NNSA/NSO LLW Federal Sub-Project Director	DOE – Nevada
Chris Grossman	Systems Performance Analyst	NRC/FSME
David Kocher	Senior Staff Scientist	SENES Oak Ridge
John LePere	Nuclear Services General Manager	WMG, Inc.
Tom Magette	Sr VP – Nuclear Regulatory Strategy	EnergySolutions
John Tauxe	PhD, PE, Senior Environmental Engineer	Neptune and Company

WAC Panel Topics

- Why should NRC specify flexibility to develop site specific waste acceptance criteria based on performance assessment and intruder assessment (e.g., exemption vs. alternative, generic or site-specific, etc.), and if so, how best should this be accomplished?
- What should NRC specify in regulation or develop guidance on acceptable approaches (e.g., scenarios, waste characterization)?
- Are there minimum waste acceptance criteria that NRC should specifically specify (ala §61.56 waste characteristics, §61.52 operational requirements, waste characterization requirements, criticality requirements, labeling, quality assurance)?
- What metrics are appropriate for determining waste acceptance criteria (e.g., 61.41, 61.42, 61.43, and 61.44)?
- How much flexibility should NRC allow on regulations regarding the longevity of institutional controls for site-specific waste acceptance criteria? Currently, institutional controls may not be relied upon for more than 100 years.
- What are the advantages of allowing flexibility to consider site-specific waste acceptance criteria?
- What are the disadvantages of allowing flexibility to consider site-specific waste acceptance criteria?

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Public Policy Panel

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Public Policy Panelists



Name	Title	Affiliation
Ralph Andersen	CHP, Sr. Dir, Radiation Safety & Environmental Protection	Nuclear Energy Institute
Lisa Edwards	Sr. Program Manager	EPRI
Earl Fordham	CHP, PE, Regional Director – WA State Dept. of Health	Low-Level Waste Forum
Ed Maher (remote)	Sc.D., CHP, HPS Past President	Health Physics Society
Arjun Makhijani	President, IEER	Institute for Energy and Environmental Research
Jennifer Opila	Radioactive Materials Unit Leader – CDPHE	CRCPD
Christopher Thomas	Executive Director	HEAL Utah

Public Policy Panel Topics



- What public policy functions does the current waste classification system provide?
- Does a WAC adequately cover all of the public policy functions that the classification system currently provides? If no, which "gaps" does it leave?
- Does a WAC provide public policy functions not covered by the current waste classification system?
- When it comes to public confidence, is there reason to believe that the waste classification system has any advantages over a WAC, or vice versa? For example, public acceptance of radioactive waste disposal was highlighted in the recent Blue Ribbon Commission on America's Nuclear Future. When applied to low-level waste, does the waste classification system provide any benefits over just a WAC, or vice-versa?
- Should performance standards/objectives be combined with concentration limits and total radioactivity limits to best protect future generations?

Public Policy Panel Topics



- If the waste classification framework were replaced by waste acceptance criteria, how would compliance with the performance objectives in Part 61 be demonstrated?
- In a revised Part 61, what should be the role of regulatory guidance? For example, are there any criteria which should be addressed in a regulatory guide rather than in the rule itself?
- What should be the level of agreement state compatibility for the provisions in the rule? Absolute uniformity or flexibility?
- Should the NRC and the DOE requirements for LLW disposal be uniform or consistent?
- Should the NRC provide support to agreement states in their public process for adopting the NRC rules?
- If the current waste classification system were eliminated in favor of only a site-specific WAC, what wastes currently not typically acceptable for near surface disposal might be allowed for near surface disposal?

Recap and Closing

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