

Emerging Industry Issues in Low Level Radioactive Waste Management

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WM2012



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Presentation Overview

- **Part 61**
- **Waste Blending & Concentration Averaging**
- **Decommissioning Planning**
- **Prompt Remediation**
- **Volume Reduction & On Site Storage**
- **Nuclear Industry Response to Events at Fukushima**

Part 61

- **Current Part 61 Assures Adequate Safety & Protection of Public & Environment**
- **Industry Supports Recent Commission Direction & ACRS Advice to Solicit Stakeholder Input on Key Technical & Policy Issues, e.g., period of performance, human intrusion, dose methodology**
- **Fundamental Policy Issues Warrant Deliberative Process & Strategic Thinking**

Branch Technical Position

- ***Commend NRC on Large Scale Blending & Waste Concentration Averaging Draft BTP***
- ***Industry Supports:***
 - **Alternative Approaches; Waste Encapsulation;**
 - **Source Disposal Guidance; Constraint Factors**
- ***Industry Concerns Include:***
 - **Unnecessary Homogeneity Tests**
 - **Overly Conservative Intruder Scenario**
 - **Arbitrary Restriction on Activated Hardware**

DG-4014 Decommissioning Planning

- ***Significant Industry Concerns Include:***
 - Integrate Part 20 Decommissioning Options
 - Detailed Guidance for Non-Reactor Licensees (GW Protection Initiative at Reactors Essentially Codified)
 - Define Important Terms, e.g., “significant residual radioactivity” and NRC Expectations
- ***Two Industry Requests:***
 - Workshop Prior to Final Guide (SRM on SECY-09-0042)
 - Delay Rule Implementation to **18 Months Post Final Guide**

Prompt Remediation Potential Rule

- **Current NRC Rules Prevent Legacy Sites – No Burning Platform**
- **Potential Rule has Significant Regulatory & Policy Implications, e.g.,**
 - **Dose Limits in License Termination Rule Provide Trigger for Remediation; More Conservative Proposed Soil Screening Criteria not Needed**
 - **Use of EPA’s MCLs as Ground Water Contamination Threshold = Shift in NRC Policy on All-Pathways, Dose Based Standard**

Waste Volume Reduction Policy & On Site Waste Storage Guidance

- **Industry Supports Volume Reduction Policy**
 - Reflects Current Industry Waste Management Practices Resulting in Reduced Volumes
- **Industry Agrees Priority on Timely Disposal Rather than Long-Term Storage When Possible**
- **Industry Supports No Consolidated On Site Storage Guidance;**
 - NRC Program Office Specific Guidance by Licensee Category
- **New TX Waste Site May Provide Option for Currently Stored Wastes**

Industry Response to Events at Fukushima since March 2011



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U.S. Response to Enhance Safety

- **Reconfirm Safety of U.S. Reactors Immediately After Events in Japan**
- **Establish Factual Basis for Action Through Extensive Analysis of the Japan Events**
- **Apply Lessons Learned at All U.S. Commercial Power Reactors**

NRC: 5 Focus Areas for Response

- **Improve Ability to Maintain Safety with Extended Loss of Electric Power**
- **Add Second System to Monitor Used Fuel Storage Pools**
- **Ensure Reliable Containment Venting on Specific Designs**
- **Evaluate Protection Against Extreme Events (earthquakes, flooding, etc.)**
- **Enhance Emergency Planning, Staffing for Multi-Reactor Events**

Industry Strategy for Action: FLEX

- **Addresses the Key Issues:**
 - **Provides Coping for Extended Power Loss**
 - **Maintains Reactor & Used Fuel Pool Cooling Capability**
 - **Protects Against Extreme External Events**
- **Performance-based, All-hazards Safety Approach**
- **Portable Backup Equipment Provides Flexible Response**

THANK YOU FOR YOUR TIME!

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