

# Blending of Low-Level Radioactive Waste

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# **Nuclear Energy Industry Principles for LLRW Management (2008)**

- 1. Storage and disposal of nuclear energy industry LLRW is managed safely and securely.**
- 2. Timely, safe, and secure disposal is preferable to long-term storage.**
- 3. Regulation should not restrict safe and secure LLRW management options**
- 4. States and LLRW compacts play key roles in the implementation of safe and secure LLRW management options.**
- 5. An open and competitive market best facilitates development of innovative and cost-effective options for safe and secure LLRW management.**

# EPRI Research Conclusions (2008)<sup>1</sup>

- Risk-informed changes to NRC guidance on concentration averaging (including blending) are warranted and justified
- Proposed changes will provide a more flexible basis for LLRW classification while still meeting disposal site safety performance objectives
- Such changes will enable, but not require, other affected parties to implement related processing and disposal options

<sup>1</sup>*Proposed Modifications to the NRC Branch Technical Position on concentration Averaging and Encapsulation - EPRI Report 10116761 (ML090230195)*



# **EPRI Research Conclusions (cont'd)**

- **104 U.S. nuclear power plants generate ~15,000 ft<sup>3</sup> of LLRW that would be disposed of as Class B/C LLRW without further processing**
  - **Consists of resins, filter cartridges and irradiated hardware**
  - **Approximately 2/3 by volume (at 65 plants) is currently being placed in safe and secure interim storage**
  - **Proposed modifications to the NRC guidance on concentration averaging and encapsulation would help facilitate processing and disposal of much of this LLRW**

# Industry Perspective on NRC Staff Recommendation (SECY -10-0043)

- Support Option 2 recommendation to revise blending positions to be risk-informed and performance-based
- Support a rulemaking to explicitly require a site-specific evaluation
- Accept that efficiency will be obtained by linking with depleted uranium rulemaking
  - Blended LLRW is not a unique waste stream