U.S. Nuclear Regulatory Commission Activities Related to U.S. Department of Energy Waste Determinations

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Enclosure 3

A Few Definitions

- Incidental Waste (or non-HLW)
- Waste Determination
- National Defense Authorization Act for FY 2005 (NDAA)

Background

- NRC involvement in DOE waste determinations began in the late 1990s
- The NDAA served to formalize the interactions between DOE and NRC
- Only Idaho and South Carolina are impacted

NDAA Waste Determination Criteria

- (1) The waste does not require disposal in a deep geologic repository
- (2) The waste has had highly radioactive radionuclides removed to the maximum extent practical
- (3A) If the waste is Class C or less, its disposal must meet the performance objectives in 10 CFR 61 Subpart C
- (3B) If the waste exceeds Class C, its disposal must meet 10 CFR 61 Subpart C and DOE must consult with NRC on development of its disposal plans

Performance Objectives

- Protection of the general population from releases of radioactivity
- Protection of individuals from inadvertent intrusion
- Protection of individuals during operations
- Stability of the disposal site after closure

Commission Direction

- Plans for implementing the NDAA described in SECY-05-0073 (April 2005)
- NRC staff directed to "ensure that the technical basis for our decisions are transparent, traceable, complete, and as open to the public...as possible"

Consultation Process

- NRC conducts an independent, safety-focused review of DOE's draft waste determination
  - Issue Request for Additional Information (RAI)
  - Meet with DOE to discuss technical issues
  - Issue Technical Evaluation Report (TER)
- DOE issues final waste determination
- Documents are publicly available

Consultation Process

- Two NDAA reviews completed thus far:

(1) Technical Evaluation Report (TER) for Salt Waste Disposal at the Savannah River Site (Dec 2005)

(2) TER for Idaho National Laboratory Tank Farm Facility (Oct 2006)

Monitoring

- In coordination with the State, NRC will monitor DOE disposal actions to assess compliance with performance objectives and report any noncompliance

- Monitoring implementation will be addressed in:
  - Specific monitoring plans for individual sites
  - Overall monitoring approach
  - Annual reports

General Approach to Monitoring

- Risk-informed and performance-based philosophy
- TER establishes key areas for monitoring
- Monitoring includes technical reviews and on-site observations
  - A few site visits per year
  - Coordination with States

Assessing Compliance

- NRC will evaluate:
  - The predictive model
  - The actual materials, inventory, structures and disposal system for consistency with the predictive model
  - Environmental data

Noncompliance Reporting

- NRC required to notify Congress, the State, and DOE

- Noncompliance can result from:
  - Performance objectives not being met
  - NRC no longer has reasonable assurance that performance objectives will be met in the future
  - Insufficient information to assess compliance with the performance objectives

In Closing…

- NRC focused on safety, transparency in its NDAA activities
- Ongoing monitoring activities at INL
- Want to keep the public informed