

February 15, 2006

MEMORANDUM TO: Scott Flanders, Deputy Director  
Environmental & Performance Assessment Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Materials Safety  
and Safeguards

THRU: Ryan Whited, Chief  
Low-Level Waste Section  
Environmental & Performance Assessment Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Materials Safety  
and Safeguards

FROM: Xiaosong Yin, Project Manager **/RA RWhited for/**  
Low-Level Waste Section  
Environmental & Performance Assessment Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Materials Safety  
and Safeguards

SUBJECT: FEBRUARY 1, 2006 MEETING SUMMARY: MEETING WITH  
U.S. DEPARTMENT OF ENERGY TO DISCUSS TECHNICAL  
ISSUES ON IDAHO WASTE DETERMINATIONS

On February 1, 2006, The U.S. Department of Energy (DOE) and the U.S. Nuclear Regulatory Commission (NRC) met to discuss technical issues related to NRC's Request for Additional Information on DOE's waste determination for the Idaho Tank Farm Facility. The meeting summary is enclosed for your use.

Enclosures

- 1: Summary of Meeting
- 2: Attendee List
- 3: DOE Presentation Slides

cc: K. Picha/DOE

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**SUMMARY OF FEBRUARY 1, 2006, PUBLIC MEETING  
REGARDING U.S. DEPARTMENT OF ENERGY  
WASTE DETERMINATION FOR THE  
IDAHO NATIONAL LABORATORY**

**Introduction**

On February 1, 2006, the U.S. Department of Energy (DOE) and the U.S. Nuclear Regulatory Commission (NRC) met to discuss technical issues related to NRC's Request for Additional Information (RAI) on DOE's waste determinations for the Idaho Tank Farm Facility (TFF). This public meeting was held at NRC Headquarters in Rockville, Maryland.

The list of attendees is included as Enclosure 2, and the presentation slides used by DOE are included in Enclosure 3.

**Discussion**

The purpose of the meeting was to discuss technical issues related to RAIs which were transmitted to DOE by NRC in January 2006, after a technical review of the Draft Section 3116 Determination for the Idaho Nuclear Technology and Engineering Center Tank Farm Facility. DOE submitted its Draft 3116 Determination to NRC for consultation in September 2005.

The technical discussion focused on four main areas: (1) questions and uncertainties regarding removal of waste to the maximum extent practical, (2) modeling of sandpad/vault inventories, (3) assumptions and information regarding 2-D modeling of the unsaturated zone, and (4) implementation of the draft NRC guidance on concentration averaging to determine the final waste form concentrations in TFF tanks.

The TFF has been used for the storage of a variety of radioactive wastes, including wastes directly from spent fuel reprocessing and other ancillary wastes. Spent fuel reprocessing wastes and other ancillary facility wastes were sent to the TFF until 1992. The TFF contains eleven 300,000-gallon tanks plus their surrounding vaults, four 30,000-gallon tanks, interconnecting transfer piping and secondary containment components for the transfer piping. Seven of the eleven 300,000 gallon tanks and all four small tanks have been cleaned. The TFF closure date is expected in 2012.

Discussions between DOE and NRC covered a wide range of technical issues. These issues included in depth discussions on (1) the recently published Draft Interim Concentration Averaging Guidance for Waste Determinations in terms of its technical applicability and the practical implementation to TFF tanks, (2) waste inventories and removal of highly radioactive radionuclides in terms of the cleaning effectiveness and ability to further clean the TFF tanks, (3) 3-dimensional vs. 2-dimensional unsaturated zone groundwater modeling and applicability of the 2-dimensional model, (4) sampling activities associated with sand pads and vault sumps and the waste inventories for performance assessment and concentration calculation, and (5) the NDAA Section 3116, Criterion 2, in terms of DOE's demonstration of the removal of highly radioactive radionuclides to the maximum extent practical.

**Public Comment**

A public comment was provided on DOE's concentration averaging approach and waste class determination.

**Closing Remarks and Follow-up**

NRC and DOE staff agreed that the meeting achieved better understanding of the issues and was useful and productive.