

August 5, 2005

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 **/RA/**
Low-Level Waste Section
Environmental & Performance Assessment Directorate

FROM: Anna Bradford **/RA/**
Senior Project Manager
Low-Level Waste Section
Environmental & Performance Assessment Directorate

SUBJECT: JULY 27, 2005 MEETING SUMMARY: MEETING WITH U.S.
DEPARTMENT OF ENERGY TO DISCUSS RESPONSES TO
REQUEST FOR ADDITIONAL INFORMATION FOR THE
SAVANNAH RIVER SITE

On July 27, 2005, staff and management from the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE) met to discuss DOE's responses to NRC's Request for Additional Information (RAI) regarding salt waste processing and disposal at the Savannah River Site. The RAI was transmitted on May 26, 2005, and the responses were transmitted in two separate packages on July 1 and July 15, 2005. The meeting summary is attached for your use.

Attachment 1: Summary of Meeting
Attachment 2: Attendee List

cc: K. Picha/DOE

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DATE	08/08/05	08/08/05

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SUMMARY OF JULY 27, 2005, OPEN MEETING TO DISCUSS RESPONSES TO REQUEST FOR ADDITIONAL INFORMATION FOR THE SAVANNAH RIVER SITE

Introduction

On July 27, 2005, staff and management from the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE) met to discuss DOE's responses to NRC's Request for Additional Information (RAI) regarding the draft waste determination for salt waste disposal at the Savannah River Site (SRS). This meeting was open to the public and was held at NRC Headquarters in Rockville, MD.

In addition to NRC and DOE staff and contractors present at the meeting, representatives of DOE-SRS, DOE-West Valley, and CH2MHill participated via conference call. No members of the public were present.

The list of attendees is included as Attachment 2. No presentations were used during the meeting. NRC's RAI letter is available in ADAMS under ML051440589 and DOE's responses are under ML051920416 and ML052030364.

Discussion

The purpose of the meeting was to allow NRC staff to ask DOE any clarifying questions regarding DOE's RAI responses. Specifically, NRC staff asked questions regarding RAI responses #2, 3, 10, 11, 12, 13, 15, 16, 18, 19, 20, 22, 24, 25, 27, 28, 31, 32, 33, 34, 35, 36, 38, 39, 41, 45, 46, 55, 56, 66, 67, and 68 (see DOE response documents for details), as well as some questions regarding DOE's Performance Objectives Demonstration Document (PODD). For example, NRC staff asked questions on: 1) model support, 2) DOE's method for determining which radionuclides are highly radioactive, 3) infiltration rates to the vaults, 4) saltstone and vault degradation, and 4) erosion design. In many cases, NRC staff indicated that it needed additional information with respect to DOE's RAI responses. DOE stated that it would provide the additional information to the NRC staff by letter at a later date. The items to be provided by DOE are listed below as Action Items.

Public Comment

None.

Closing Remarks and Action Items

DOE stated it would provide the following to NRC:

1. Reference cited in RAI responses titled "Removal of Highly Radioactive Nuclides from SRS Salt Waste," Reboul 2005.
2. Data that could provide model support for simulation results (RAI 3)
3. Demonstration that DOE's definition of highly radioactive radionuclides is based on conservative analysis or provide adequate model support (RAI 11)
4. Infiltration rates to the top of the vaults and sensitivity analysis evaluating combinations of parameters (RAI 19)
5. Additional technical details on erosion design (RAIs 22, 25)

6. Root depth for pine trees and possible impacts on cap performance (e.g. fast pathways) (RAI 24)
7. Basis for degraded values of concrete and saltstone beyond professional judgment (RAI 32)
8. Assessment of flow through fractures considering realistic conditions (e.g., seismically-induced offset, variability in moisture, infilling of fractures) (RAI 36)
9. Any additional information to support reducing conditions of the saltstone wasteform considering cracking and oxygen transport in the gas phase (RAI 41, 55)
10. Explanation of why findings in April 2005 report (WSRC-TR-2005-00114) do not invalidate DOE's conclusions that in-tank treatment of Tank 48 waste is not feasible (RAI 13)
11. Sampling plan for waste sent to Saltstone Production Facility (RAI 16)
12. Information on the range of precipitation and infiltration rates with regard to the cap (RAI 20)
13. Comparison of the slag data on a non-linear scale or in tabular form (RAI 31)
14. Identification of reference for Malek data and whether Malek data was considered in defining degraded value for concrete and saltstone (RAI 33)
15. Description of use of data in generating moisture curves considering the identified errors in the collected data (RAI 34)
16. Sensitivity analysis and/or model support for saturation of the vaults (RAI 35)
17. Description of the process controls in place for controlling/evaluating grout composition for broad range of waste streams sent to Saltstone Production Facility (RAI 38)
18. Information regarding concentration fluxes of NO_3 in the vault area (RAIs 45, 46)
19. Information regarding the use of generic data for soil-to-plant transfer factors rather than site-specific information, or the sensitivity to the use of that data (RAI 56)
20. Information regarding the sheet drain and cure/bleed water, as well as sulfate degradation assumptions (RAI 39)
21. Information on the characterization and design for the existing vaults at the saltstone facility and the already-emplaced saltstone (RAI 42)
22. Correction or explanation of inconsistent values used for sums of fractions on page 94 of the PODD

NRC staff stated it would like to have a follow-up meeting in August to continue the discussion about the RAI responses. DOE agreed.

**Attendees at NRC and DOE Meeting
to Discuss Responses to Request for Additional Information
July 27, 2005**

NAME	AFFILIATION	PHONE NUMBER
Michele O'Shaughnessy	NRC/NMSS	301-415-6659
Anna Bradford	NRC/NMSS	301-415-5228
Mark Gilbertson	DOE-EM/HQ	202-586-5042
Terrel Spears	DOE-SRS	803-208-6072
Randall Kaltreider	DOE-HQ	301-903-4259
Bill Clark	DOE-SRS	803-208-0231
Steve Thomas	WSRC	803-208-8064
Ginger Dickert	WSRC	803-208-1527
Thomas Frank England	WSRC	803-557-8825
John Marra	SRNL	803-725-3701
Scott Flanders	NRC/NMSS	301-415-6717
Ted Johnson	NRC consultant	304-876-2209
David Esh	NRC/NMSS	301-415-6705
David Turner	CNWRA	210-522-2139
Lane Howard	CNWRA	210-522-4881
Roberto Pabalan	CNWRA	210-522-5304
Marisa Higgins	NRC/OGC	301-415-6971
Mark Thaggard	NRC/NMSS	301-415-6971
Carrie Brown	NRC/NMSS	301-415-8092
Brenda Hays	DOE-SRS	803-952-8562
Eloy Saldivar	WSRC	803-208-0245
Latif Hamdan	NRC/ACNW	301-415-6639
WSRC (on phone)		
DOE-SRS (on phone)		
West Valley (on phone)		
CNWRA (on phone)		
CH2MHill (on phone)		