December 9, 2010

MEMORANDUM TO: Gregory Suber, Chief
Low-Level Waste Branch
Environmental Protection
and Performance Assessment Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

FROM: Nishka Devaser, Project Manager**../RA/**
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SUBJECT: NOVEMBER 15, 2010, JOINT PUBLIC MEETING SUMMARY: MEETING REGARDING WASTE INCIDENTAL TO REPROCESSING ACTIVITIES AT THE SAVANNAH RIVER SITE

On November 15, 2010, the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE) provided a group of presentations to interested members of the public in Aiken, SC. This was a Category 2 public meeting in which members of the public were invited to provide comments and questions regarding Waste Incidental to Reprocessing activities at the Savannah River Site.

The purpose of the meeting was for the NRC and DOE to provide the public with an update on activities performed under Section 3116 of the National Defense Authorization Act for Fiscal Year 2005 (NDAA) at the Savannah River Site, to provide interested stakeholders a chance to make comments and ask questions, and to inform the public of future activities. Each agency presented a brief introduction to its respective process under the NDAA, which was followed by each agency providing an assessment of the challenges and accomplishments since the NDAA's inception in 2005.

A summary of the discussion, a list of attendees, and the presentations made at the meeting can be found in the enclosure and attachments, respectively.

CONTACT: Nishka Devaser, FSME/DWMEP
(301) 415-5196

Enclosure: Meeting Summary
with Attachments

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OFC	DWMEP:PM	DWMEP:TR	DWMEP:LA	DWMEP:BC	DWMEP:PM
NAME	NDevaser	KPinkston	AWalkerSmith	CMcKenney	NDevaser
DATE	11/30/10	12/01/10	12/02/10	12/02/10	12/09/10

Joint Meeting Summary
U.S. Nuclear Regulatory Commission and U.S. Department of Energy Joint Public Meeting
Regarding Waste-Incidental-to-Reprocessing Activities at the Savannah River Site
November 15, 2010,

This enclosure provides a summarized background of the meeting and its purpose, a description of questions asked during the meeting and their respective answers, and comments received from members of the public during the meeting.

Background

The National Defense Authorization Act for Fiscal Year 2005 (NDAA) was signed by the President on October 28, 2004. Section 3116 of the NDAA allows the U.S. Department of Energy (DOE) to determine that certain incidental waste, stemming from reprocessing of spent nuclear fuel, is not high-level waste (HLW). Should these incidental wastes, or Waste Incidental to Reprocessing (WIR), meet the criteria defined by the NDAA, they can be disposed via near-surface disposal. The NDAA is applicable only in the states of South Carolina and Idaho and does not apply to waste transported out of these States. The NDAA requires that: 1) DOE consult with the U.S. Nuclear Regulatory Commission (NRC) on its waste determinations in South Carolina and Idaho, and 2) NRC, in coordination with the State, monitor disposal actions taken by DOE for the purpose of assessing compliance with NRC regulations in 10 CFR Part 61, Subpart C. If the NRC considers any disposal actions taken by the DOE pursuant to subparagraphs (A) or (B) of Section 3116(a)(3) of the NDAA to be not in compliance with those performance objectives, the NRC shall, as soon as practicable after discovery of the noncompliant conditions, inform the DOE, the covered State, and Congress.

On November 16, 2006 and July 20, 2007, the NRC and DOE held public meetings to discuss implementation plans for the NDAA and the efficiency and effectiveness of the consultation process. Transcripts from these meetings are accessible via NRC's document repository, the Agencywide Documents Access and Management System (ADAMS), at ADAMS accession numbers ML070160334 (November 16, 2006) and ML073331070 (July 20, 2007).

Attachments

This summary includes five attachments, which includes the four presentations from the meeting.

Attachment 1. List of Meeting Attendees

Attachment 2. "Process for DOE and NRC Interactions for the NDAA of 2005, Section 3116" Presentation by Linda Suttora, DOE

Attachment 3. "NDAA Section 3116 Process, NRC Perspective" Presentation by Gregory Suber, NRC

Attachment 4. "DOE Accomplishments and Challenges" Presentation by Frank Marcinowski, DOE

Attachment 5. "NDAA Section 3116 Accomplishments and Challenges" Presentation by Larry Camper, NRC

November 15, 2010 Meeting Details

The meeting was held in Aiken, SC from 7:00 p.m. until 10:00 p.m. and was composed of four presentations: (1) the NDAA process from DOE's perspective, (2) the NDAA process from the NRC's perspective, (3) challenges and accomplishments under the NDAA from DOE's perspective, and (4) challenges and accomplishments under the NDAA from NRC's perspective. The meeting opened on time and the meeting organizer restated the purpose of the meeting and introduced each speaker prior to presenting. Public comments and questions were accepted in between the second and third presentations and again after the fourth presentation. Those public comments and questions and their respective answers are summarized below.

Questions and Comments from Members of the Public

Tom Clements, Friends of the Earth

1. *(Of DOE) How has the PA process improved since the PA of Tanks 17 and 20?*

   DOE Response: Since the development of the Tank 17 and 20 PA, public involvement has been incorporated into the process.

2. *(Of DOE) Relative to the earlier PA of Tanks 17 and 20, are disposal processes being planned to a higher standard?*

   DOE Response: At the time of the Tank 17 and 20 PA, DOE Order 435.1 only required the compliance be analyzed up to 1000 years and peak dose. NRC policy is that compliance must be demonstrated out to 10,000 years. In addition, deterministic and probabilistic assessment is now used, compared to the deterministic analysis used for Tanks 17 and 20.

   Tanks 17 and 20 were closed before inception of Order 435.1. At the time of Tanks 17 and 20 closure, compliance was at approximately 1 mile from the F-Tank Farm at the seep line as compared to the current 100-meter from the edge of the tanks compliance point.

3. *Is the PA created in assessing and closing Tanks 17 and 20 being used as a reference in NRC's review of the F-Tank Farm PA?*

   NRC Response: At the time of the meeting, the NRC stated that they were unsure of the answer to this question and stated that Mr. Clements question would be responded to by email once the NRC staff could speak with the appropriate subject matter experts at headquarters. In answer to this question, no, the NRC staff is not using the PA from Tanks 17 and 20 as a reference to the current F-Tank Farm PA, rev 1 review. The reason for this is that the new PA includes dose from all of the F-Tank Farm, including Tanks 17 and 20. The new PA is a more sophisticated and rigorous document than the one done for Tanks 17 and 20.

4. *Is any monitoring of the grouted tanks currently taking place?*

DOE Response: Monitoring of the groundwater around the tank farms has been occurring for decades. However, no specific inspection or monitoring of the grouted tanks (Tanks 17 and 20) have occurred. As described in the F Tank Farm Industrial Wastewater General Closure Plan, maintenance and monitoring activities of grouted tanks will be governed by an Interim Action Statement of Basis/Interim Action Proposed Plan for the tank farm as implemented through an Interim Record of Decision and RCRA permit modification. DOE is currently developing these documents for the State of South Carolina and Environmental Protection Agency review and approval in the next calendar year. These documents are anticipated to be available for public input.

In the interim period until such plans and requirements are in place, DOE has committed to perform annual visual inspections to include, at a minimum, water accumulation in surrounding areas and physical integrity of visible installed barriers.

5. *With respect to the concept of "maximum extent practical", given budgetary constraints, what is NRC's view on the definition of "practical" changing in a bad economy?*

NRC Response: The NRC considers no economic component in its assessment of criterion 2 of the NDAA, Section 3116, *removal of key radionuclides to the maximum extent practical*. The NRC reviews compliance with this criterion only from a technological standpoint.

6. *If something meets the "maximum extent practical" criteria, does that create a baseline for the extent practical?*

NRC Response: DOE will always need to justify the practicality of compliance with this criterion. The NRC considers each review of this type independent of other decisions.

7. *Are different standards used across the DOE complex for different wastes? For example, Section 3116 versus Hanford Waste?*

DOE Response: When the NDAA was created, the State of Washington opted not to be included in the list of covered states. The reason for this was that the State of Washington was already engaged in the development of Appendix H of the Tri-Party Agreement with EPA and DOE for the purpose of tank closure.

8. *Would DOE like Washington to be a covered State under the Section 3116?*

DOE Response: Yes, using the same regulatory structure for all sites would simplify the process considerably.

Bobbie Paul, Georgia Women's Action for New Directions

1. *What percent of the DOE's budget is being consumed by the tank farms cleanup process?*

   DOE Response: Approximately one-third of DOE's Office of Environmental Management budget.

2. *Has this always been the case?*

   DOE Response: Yes, it has been this way since cleanup began.

3. *Who criticizes the NRC for asking questions? DOE?*

   NRC Response: The NRC has received comments from various members involved in this process. One particular member of the South Carolina Governors Nuclear Advisory Council made mention of the NRC being overbearing in its review of the F-Tank Farm PA. In addition, other members of the public have expressed some concern stating that the NRC slows down the Waste Determination process.

   Those who query why the NRC asks lots of questions are worried that the NRC is slowing a process of closing tanks that have already leaked. The NRC is simply ensuring that the tanks are closed adequately so that they do not leak in the future.

4. *Is the NRC in communication with the Georgia Environmental Protection Division? Were they invited to the meeting?*

   NRC Response: No, the NRC has not interacted with the State of Georgia on this project, however, everyone is invited to these meetings and especially potentially affected members of the State of Georgia.

   DOE Response: Members of the State of Georgia, including the Environmental Protection Division are welcome to attend these meetings. Similar to NRC, the DOE also does not have a relationship with the State of Georgia on this project.

5. *What is a "non-rad" (non-radiation) worker?*

   NRC Response: There is a formal definition of a non-radiation worker, which can be provided in response, however, a rough definition of a non-radiation worker is one that does not work with radioactive materials and is not provided with a dosimeter.

Glenn Carroll, Nuclear Watch South

1. *Given that NRC has no regulatory authority, what will the NRC do in the event of non-compliance?*

   NRC Response: NUREG-1854, the NRC's Staff Guidance Document on WIR Activities, makes a point of clearly defining agency action in the event that the NRC does not have sufficient information to

conclude that the Part 61 performance objectives are not being met.

2. *If DOE is uncooperative, could the NRC's report be used by another entity, say, SC DHEC to enforce compliance?*

   NRC Response: No, but the NRC does report to the State of South Carolina and Congress for periodic updates of the process and in the event of non-compliance.

3. *How could the NRC provide action if at year 100 assumptions made by DOE prove to be incorrect?*

   NRC Response: NRC's monitoring responsibilities go on in perpetuity, and presumably, the U.S. Government and its infrastructure will still be in place, meaning that the NRC would notify the State of South Carolina and Congress of the non-compliance.

4. *What if the NRC is unable to reach certainty in assessing compliance?*

   NRC Response: Forecasting the future is a difficult task, which involves many assumptions. The task for NRC is to ensure that our conclusion is reached using a reasonable assurance approach.

Comment from Glenn Carroll of Nuclear Watch South:

Section 3116 of the NDAA - Nuclear Watch South (NWS) does not accept Section 3116 of the NDAA. NWS has been involved in the Pu disposition program for 9 years as interveners before the NRC on MOX licensing. The program has changed many times since then. NWS sees value in using tank waste as a medium of immobilizing Pu; however, we have mixed feeling on progress made. NWS resents the lack of progress with dealing with the tank waste but is glad that Pu is not bound in concrete and is therefore still available to immobilize plutonium in the Defense Waste Processing Facility in the high-level tank waste glassification program. NWS remains concerned about concrete as a medium.

Radiation Standard - At the CAB, many references were made to volumes, but not to radiation content. Radiation is the only significant standard by which public impacts can be measured.

NRC Role - NRC please be TOUGH! We have lived with DOE's standard for too long and the long-term impacts to Georgia and South Carolina, the prospect of emplacing radiation in a crumbling medium above a shallow water table, is frightful. We must not repeat history. We must do better.

Tank Closure Process

- In early experience with DOE tank closure, NWS has observed that DOE estimates of the radiation inventory of a particular tank have been LOWER than the final radiation inventory of a so-called "clean" tank; therefore, NWS has low confidence in DOE.
- Don't be hasty. Take time to FOCUS ... we are not in the situation from trying and failing. We've never made radioactive waste a proper priority.
- "Maximum extent practical" is not a standard it is the new "ALARA." We demand a STANDARD.
- The Blue Ribbon Commission on radioactive waste has been focused mainly on irradiated commercial fuel and the prospects for reprocessing. We hope they can learn the lesson of reprocessing risk from seeing a 60-year backlog of stranded, problematic tank waste at SRS and, further, will include the tank waste in their considerations and recommendations.

- Sure, it's "rocket science." There is also a need for getting chemical and mechanical engineering involved in developing new technologies for proper waste containment.
- NWS prefers glass to concrete because glass is a stable medium and concrete is an unstable WATER-BASED medium.
- NWS is against grouting the tanks, because this precludes any future better management.
- Previous experience of saltstone vaults shows cesium outside of the vaults within weeks.

Conclusion - Many issues occurring onsite have impact on South Carolina and Georgia, including the MOX facility. The tanks are already here, and are one of the most dangerous situations on Earth. We are in an important frontier inventing solution to a previous unexperienced problem. It is worthy work that we come here to discuss tonight. And furthermore, the radioactive waste tanks are terribly important and Nuclear Watch South honors everyone in the room for coming together to discuss them. God help us to face the task and consider the future.

Joe Ortaldo, SRS Citizens Advisory Board, Waste Management Committee Chair

1. *Does the NRC expect review of the H-Tank Farm PA to move faster than the F-Tank Farm PA?*

   NRC Response: The NRC would hope that the review process will be more efficient; however, the quality of the review is directly dependent upon the quality of the submittal from DOE. Assuming that DOE's submissions improve with time, yes, the H-Tank Farm PA review process will be faster.

2. *What is expected to hold up the critical path? Cost? Personnel?*

   NRC Response: The NRC does not have the resources that DOE has on this project. For example, the PA staff that reviews the basis documents has many other projects. Knowing what is coming always helps in planning and preparing, however, what drives this process more than NRC's available resources is the quality of the submission. *Bottom line, it does take time to get this right the first time.*

<u>Meeting Close</u>

The meeting organizer closed by stating that the meeting summary would be available within 30 (thirty) days from November 15 and would be publicly available via ADAMS.

Meeting Attendees

Ernest S. Chaput	Economic Development Partnership
Tom Clements	Friends of the Earth
Bobbie Paul	Georgia Women's Action for New Directions
Dianne Valentin	Georgia Women's Action for New Directions
Glenn Carroll	Nuclear Watch South
Karen Patterson	Public
Nancye Bethurem	Savannah River Remediation
Ginger Dickert	Savannah River Remediation
Frank England	Savannah River Remediation
Jim French	Savannah River Remediation
Tom Robinson	Savannah River Remediation
Steve Thomas	Savannah River Remediation
Joseph Ortaldo	SC CAB
Frank Marcinowski	U.S. Department of Energy - Headquarters
Linda Suttora	U.S. Department of Energy - Headquarters
Brenda Hays	U.S. Department of Energy - Savannah River
David Hoel	U.S. Department of Energy - Savannah River
Lucy Knowles	U.S. Department of Energy - Savannah River
Sherri R. Ross	U.S. Department of Energy - Savannah River
Terrel J. Spears	U.S. Department of Energy - Savannah River
Larry Camper	U.S. Nuclear Regulatory Commission
Nishka Devaser	U.S. Nuclear Regulatory Commission
Karen Pinkston	U.S. Nuclear Regulatory Commission
Gregory Suber	U.S. Nuclear Regulatory Commission