Summary Notes, August 21, 2007
SRS Citizens Advisory Board
Waste Management Committee Meeting

The Savannah River Site (SRS) Citizens Advisory Board (CAB) Waste Management Committee (WMC) met on Tuesday, August 21, 2007, 5-7 p.m., at the Aiken Federal Building, in Aiken SC.

The purpose of this meeting was to discuss the following:

1) Closure of Radioactive Liquid Waste Tanks at SRS;
2) Informal remarks and discussions of the Actinide Removal Project (ARP) / Modular Caustic Side Solvent Extraction Unit (MCU*)*;
3) Transuranic (TRU) Waste Inadvertently Dispositioned in the Low-Level Waste (LLW) Slit Trenches; and
4) an opportunity for public comments on CAB related documents.

ATTENDEES:

CAB Members	**Stakeholders**	**DOE/Contractors/Others**
- Joe Ortaldo, Chair	Lee Poe	Sheron Smith, DOE-SR
- Alex Williams, Vice Chair	Bill McDonnell	Tony Polk, DOE-SR
- Art Domby, Vice Chair	Mike French	Larry Ling, DOE-SR
- Franklin Boulineau	Perry Holcomb	Howard Pope, DOE-SR
- Leon Chavous		Soni Blanco, DOE-SR
- Karen Patterson		Guy Girard, DOE-SR
- Bob Miesenhiemer		Sherri Ross, DOE-SR
- Stan Howard	Rob Pope, EPA	Mike Micholanis, DOE-SR
Mary Drye	Shelly Sherritt, SCDHEC	Steve Thomas, WSRC
	Mark Sautman, DNFSB	Keith Harp, WSRC
		Walt Isom, WSRC
	Rick McLeod, Technical Advisor	Paul Sauerborn, WSRC
		Ginger Dickert, WSRC
		Mtesa Wright, WSRC
		Sonny Goldston, WSRC
		Mark Schmitz, WSRC
		Roger Seitz, SRNL
		Elmer Wilhite, SRNL
		Michael Norton, Parsons
		Mark Breor, Parsons
		Roy Schepens, Parsons
		Charlie Hansen, Parsons

- *Waste Management Committee Members*

Welcome and Introduction:

Joe Ortaldo, WMC Chair, welcomed and thanked everyone for attending the meeting especially due to the time change to begin at 3:00 p.m. to accommodate those members who wish to attend the Citizens for Nuclear Technology Awareness (CNTA) dinner with Mr. Jim Rispoli, Assistant Manager for Environmental Management, who is the keynote speaker.

Mr. Ortaldo referenced the meeting ground rules and encouraged participation of all attendees; reviewed the agenda; and asked for all attendees to introduce themselves.

The meeting opened with discussions of a letter that was issued to the Department of Energy – Savannah River Operations Office from the Chair, Waste Management Committee, SUBJECT: Disposal of CERCLA Waste in the SRS E-Area Slit Trenches – Off Site Rule. The letter was issued on August 21, 2007. The purpose of the letter was to document the SRS CAB's issues and closure of the proposed draft motion and provide appreciation for the successful collaborative efforts between the DOE, the Environmental Protection Agency (EPA), and the South Carolina Department of Health and Environmental Control (SCDHEC) who resolved the issues in a timely manner.

Closure of Radioactive Liquid Waste Tanks at SRS:

The meeting continued with a presentation by Sherri Ross, DOE-SR, who provided the status and path forward of the radioactive liquid waste tanks closure activities at SRS. She stated that a contract was awarded to TMR Associations on 08/02/07 to complete three phases: 1) Proof of concept (ECD 09/2007); 2) Full scale demonstration (ECD 02/2008) and 3) Tanks 18 and 19 waste removal (ECD 09/2008). Tanks 5 and 6 are in the final stages of the mechanical cleaning and expect oxalic acid cleaning (ECD 09/2008).

The F-Tank Farm Performance Assessment (PA) continues to be worked during seven recent scoping meetings being held since February 2007 between the Department, the Nuclear Regulatory Commission (NRC), the SCDHEC, and the EPA. Summaries of the scoping meetings will be posted on the Environmental Management (EM) website. The F-Tank Farm PA is scheduled to be issued to NRC, SCDHEC, and EPA by 04/2008. There are some generic technical issues that are being worked through pre-decisional discussions, such as, the point-of compliance; the concentration averaging; the model support, sensitivity and uncertainty analysis; the cumulative impacts; the long-term grout performance; and the long-term engineered cap performance. Ms. Ross completed her presentation by providing the DOE commitment to keep the public participation process ongoing and the CAB members and other stakeholders fully involved and informed of the closure of radioactive liquid waste tanks.

Open discussions questioned why the testing was not completed at the TNX facility onsite. The reply indicated that by completing the testing at the vendor's facility allows quicker processing and at a full-scale model. DOE-SR sends representatives for monitoring and oversight. DOE-SR is working to reduce costs, risks, and possibly to install robotic capabilities to resolve and be able to work with the different types of waste and conditions in the tanks. The previous PA brought a lot of questions that are being worked to resolution through the new FTF PA using a more sophisticated model.

Further discussions included a question on what is the position of the State on how much waste would be acceptable to remove from the tanks. The SCDHEC representative replied that the position of the State would be expressed in the General Closure Plan and that the public would have an opportunity to review the Plan with a budget based on the PA concept.

Rick McLeod, Technical Advisor, asked if the performance assessment effects which tanks are determined to be closed. Ms. Ross replied that the PA supports the decision to close a tank and with this approach, DOE-SR will initiate closure of the F-Area Tank Farm first, and will continue in H-Area Tank Farm to close all tanks.

Informal remarks and discussions of the Actinide Removal Project (ARP) / Modular Caustic Side Solvent Extraction Unit (MCU) *(provided by Soni Blanco, DOE-SR)*

- ARP/MCU Status Update
  - All startup testing complete
  - Testing results show MCU process meets technical requirements
  - SCDHEC approved MCU Operating Permit
  - System configuration for integrated runs in progress
  - On schedule to meet regulatory commitment to start radiological operations (integrated runs) by 9/30/07
  - On schedule to start hot operations in March 2008
- Interaction between MCU and SWPF
  - Periodic technical exchanges
    - Most recent meeting on 8/1 to talk about recent developments in the MCU runs and SWPF testing followed by tour of Barnwell site
  - Ad hoc interactions
  - Facility Tours
  - WSRC participated in SWPF 35% design review and will participate in 65% design review
  - Requests For Information
    - 35 Parsons to WSRC
    - 7 WSRC to Parsons
  - Appropriate interaction on going to ensure lessons learned and new developments are shared to avoid repeat of conditions not desired and to facilitate process optimization

Open discussions continued with confirmation by representatives from Parsons, Washington Savannah River Company, and the Department that they are conducting meetings to ensure technical exchange of testing results and information on a monthly basis and on an as needed basis when issues arise. This information exchange incorporates a full scale of discussions and opportunities for technical exchanges among all parties. Any discrepancies indicated are resolved among three parties.

Guy Girard, Federal Project Director, confirmed the Salt Waste Processing Facility activities have been integrated with the work ongoing in Barnwell. He stated that these technologies are not new and that lessons learned visits to other sites have occurred to incorporate all aspects of the testing of filters and the performance of filters is applied to our activities. He stated that the reason for manufacturing these filters is due to solids on contact and that we have to operate in various bands, operating range, and confirming input to understand the basis and utilize the results to be able to move forward in the project activities. Overall agreement is that the SWPF project team does not want to have mistakes due to lack of knowledge and then repeat the same mistakes by others who have used these technologies. The SWPF integrations and understanding is very aggressive, therefore assumptions are built in schedules.

The Waste Management committee members encouraged all parties to continue the ongoing communications and stated the importance of the successful completion and need for the SWPF in a timely manner to ensure no impacts to the Defense Waste Processing Facility.

Transuranic (TRU) Waste Inadvertently Dispositioned in the Low-Level Waste (LLW) Slit Trenches – *Presentation provided by Howard Pope, DOE-SR, and Sonny Goldston, WSRC.*

The purpose of the presentation is to respond to a request of the Citizens Advisory Board Waste Management Committee Chair, to provide information concerning the inadvertent disposition of a small amount of TRU Waste in the E-Area LLW Slit Trenches.

Background:

- Engineering Staff discovered a data entry error made in early 1980's resulting in the realization that five containers with a sufficient quantity of transuranic isotopes to be TRU Waste were inadvertently dispositioned in the E-Area slit trenches in 2003.
- This action was a result of cross check work to characterize waste packages and it was self-reported right away so that appropriate actions and evaluations could be taken.
- 1970's - Handwritten Burial Ground Slips contained notes that indicated transuranic isotopes were present.
- 1980's - The electronic data system known as COBRA was instituted for Burial Ground slips. Handwritten notes were not included in the electronic database.
- When characterizing waste containers for disposal in June 2007, Engineering Staff noticed the lack of handwritten Burial Ground Note information in COBRA and correctly decided to review them.
- From this review of the handwritten notes, five previously disposed containers were determined to be TRU Waste.

Evaluation:

- 5 TRU containers (legacy from 1970's) dispositioned as LLW
  - Slit trench# 3: One concrete cask
  - Slit trench# 5: Two 55 gallon drums
  - Slit trench# 6: Two containers (one concrete cask, one 85 gal overpack)
- Slit Trenches continue to be protective of the public and environment.
  - The dispositioned waste is well within the Performance Assessment limits, and therefore protective of human health and the environment.
  - No impact to Safety Analysis.

Corrective Actions

- Immediate
  - WSRC and DOE-SR notifications to Senior Management
  - Suspended LLW shipments originating from TRU operations until completion of an "extent of condition" review. Extent of condition review completed with no other identified issues.
  - Additional notifications were made to:
    - The DOE-HQ Low Level Waste Disposal Federal Review Group (LFRG)
      - No immediate actions were requested due to insignificant Performance Assessment impacts.
      - Options identified consistent with other similar DOE events.
    - Courtesy notifications to SCDHEC and EPA.
  - Completed calculation note and demonstrated that DOE 435.1 performance assessment objectives continued to be met.
- Near-Term
  - Developed a path forward for retrieval vs. disposal in place.

- Conducting a formal root cause analysis.
- Prepared Unreviewed Safety Question (USQ) to address the Safety Basis

Actions to Prevent Recurrence

- Programmatic
  - Burial slips and notes have been scanned and are all electronically available.
  - Engineers must now validate all inputs (e.g. burial notes) in accordance with changes made to Manual E7 (Conduct of Engineering).

- Self-Assessments
  - Facility Evaluation Board (FEB) focus on reviewing waste characterization.
  - Required self-assessments for all waste generators in the area of waste characterization.

Retrieval Alternative

- Team currently evaluating options to retrieve TRU waste.
  - Preliminary plan of action includes:
    - Removal of approximately 100,000 to 150,000 cubic feet of debris waste
    - Safety basis review
    - Radiological hazards review
    - Industrial hazards review (e.g. sharp metal, concrete).
    - Resource allocation
    - Overall schedule dependent on:
      - Integrity of buried waste containers
      - Actual location vs. estimated location of 5 containers
      - Weather conditions
      - Integrity of container labeling
      - Ability to safely enter the slit trench and efficiently overpack and extract debris and containers

- Path forward to be determined upon conclusion of evaluation.

Disposal in Place Alternatives

- Option #1 - DOE has authority per 40 CFR 191 and DOE 435.1 for disposal of TRU in non-WIPP location.

- Option #2 - Secretary of Energy (with concurrence of Administrator of EPA) approval that waste does not need the degree of isolation required by 40 CFR 191 and does not need to be considered TRU waste.

- Option #3 - Due to the relatively minor impact to the Performance Assessment and inadvertent nature of the disposition, a PA Unreviewed Disposal Question Evaluation and/or Special Analysis could be conducted to determine whether the impacts are acceptable.

- Protection of the public and the environment must be demonstrated in all 3 options.

Impact to Performance Assessment is Minimal

- Based on the Safety Analysis and Performance Assessment, the waste in its current condition does not pose an immediate or long term concern.

- We are continuing our evaluations so that we can make a thorough and technically competent recommendation.

- Safety of our workers, protection of the public, and protection of the environment are our highest concerns.

DOE Oversight and Regulation

- DOE intentionally involved immediately.
  - Ensure Performance Assessment transuranic isotope limits were not exceeded
  - Facility representatives engaged in critique of event
  - Safety Basis evaluation
  - DOE Orders and Requirements evaluation (DOE Order 435.1)

- DOE-HQ Low Level Waste Disposal Facility Federal Review Group (LFRG) per DOE Order 435.1 was informed immediately and is engaged to ensure Performance Assessment impacts are properly evaluated.
- DOE-SR review of Performance Assessment calculations to ensure protection of human health and the environment.
- DOE-SR independently reviewing Safety Basis information to ensure compliance - no Technical Safety Requirement violation has occurred.
- DOE-SR review of retrieval and disposal-in-place options will result in approval of a path forward that is the most cost effective while ensuring the safety of workers, the public and the environment.
- DOE reviewing WSRC actions for sufficiency.
- DOE will make a decision on which option to pursue based on safety, environmental impact, costs and schedule.
  - Expect recommendations to be submitted by WSRC in August 2007.
- DOE will keep the CAB informed on progress.

The Waste Management committee members stated that cost versus a risk benefit analysis is necessary. Overall agreement, but the CAB wants SRS to make an informed decision. WSRC replied and DOE-SR agreed that is why the review is being done to determine the best path forward and ensure the mistake does not reoccur. The discussions concluded with stating that the criteria for making the decision of retrieval or leave in place have not been established, and that the evaluation of the issue, the costs, and the risks to the workers, public, and the environment would be the driver of the decision.

Public Comment:

Lee Poe would like to see public involvement in getting the information to the public. He feels a workshop to discuss the process and have input on the decisions would be of benefit to the public.

Adjourn:

Mr. Ortaldo adjourned the meeting at 5:05 p.m.

Follow-Up Actions:

Joe Ortaldo, Chair, WMC, requested a briefing on Tank 48 at the next WM Committee meeting.

Art Domby, Vice Chair, WMC, would like the call in number to be made available to the CAB members so that they can listen to the meeting.