



SRS Citizens Advisory Board

Waste Management Committee

Meeting Summary

January 14, 2002
Hilton Oceanfront - Palmetto Dunes
Hilton Head Island, SC

The Waste Management Committee (WMC) of the Savannah River Site (SRS) Citizens Advisory Board (CAB) met at the Hilton Oceanfront - Palmetto Dunes on January 14, 2002. Attendance was as follows:

CAB Members

Wade Waters*
William Lawrence*
Gerald Devitt*
Meryl Alalof*
Vera Jordan*
Perry Holcomb*
Heather Simmons*
Karen Patterson*
Beckie Dawson*
Murray Riley*
Lola Richardson*
Ken Goad

Stakeholders

Elizabeth Malone
Judith Bradbury
Mike French
Mary Drye
Rick McLeod, CAB Tech Advisor

Regulators

None

DOE/Contractors

George Mishra, DOE
Ray Hannah, DOE
Gerri Flemming, DOE
Terry Spears, DOE
Steve Piccolo, WSRC
Brian Ray, BNFL
Sonnhy Goldston, WSRC
Teresa Haas, WSRC
Kelly Way, WSRC
Lyddie Broussard, WSRC
Helen Villasor, WSRC

*Denotes members of the WMC

Wade Waters opened the meeting promptly at 7:00 p.m. by welcoming the attendees and inviting introductions. There were no public comments. Mr. Waters then introduced Mary Drye, a candidate for the 2001 CAB membership campaign. Ms. Drye briefly addressed the group and said that over the years she has made several attempts to become a CAB member and was looking forward to the CAB elections to be held the next day. Ms. Drye noted that because of her interest, she has followed the CAB's activities for several years.

Mr. Waters then introduced Steve Piccolo, WSRC Vice President and General Manager of the High Level Waste Division

High Level Waste (HLW) Progress Report

Steve Piccolo opened his presentation by providing an overview of the HLW commitments and discussing the Division's mission review. The HLW missions are as follows:

- Minimize risks by immobilizing wastes through vitrification, disposal through Effluent treatment, and disposal in grout
- Manage the HLW inventory safely
- Remove waste and close tanks

Mr. Piccolo compared the HLW situation to an hourglass. Last year, HLW was in the neck of the hourglass and there was much concern with Defense Waste Processing Facility (DWPF) melter life, salt disposition, leaking tanks, and failing evaporators. This year many obstacles have been overcome, and the "sand in spilling out of the neck". "Where are we now?" Mr. Piccolo asked. For the fifth year in a row, DWPF is exceeding production goals and pouring Sludge Batch 2. Sludge batch 3 is ahead of schedule. Saltstone is scheduled to restart in May, and all three evaporators are operating. In the month of December one half million gallons of space gain was gained and a million gallons of overhead.

Also, Tank 49 has been returned to service. This provides 1.3 million more gallons of space. The liquid waste in the two leaking tanks has been lowered to below the leak sites, Tank 50 is on schedule to return to service, Tank 37 is on schedule for concentrate receipt, and the influents sent to the tanks have been reduced substantially. One-half of DWPF recycle has been cut out. Mr. Holcomb asked about the silica problem and its effect on tank space. Mr. Piccolo answered that limiting the volume will not help the silica problem. The silica problem will be managed by how HLW feeds the evaporators. Solids are a problem in the evaporators; however, the silica issue can be managed in the tanks.

Mr. Piccolo continued with the key obstacles that HLW has overcome in 2001. There is feed prepared for DWPF, the 2H Evaporator has been restarted, and performance is being maximized in the 3H Evaporator, Tank space is being managed. Three million gallons of space has been put back in the HLW inventory.

The DWPF melter has been in operation for seven and one-half years, with its design life one-third that time. DWPF had an electrical problem this year that SRS was able to remotely repair and sustain. A spare melter is ready to replace the old one. Tank 40 is feeding DWPF, and DOE has made the Alternative Salt technology decision. Obviously, HLW has overcome a lot in 2001, Mr. Piccolo said.

Mr. Piccolo continued by discussing Tank Space Management. HLW follows the System Plan very closely and Revision 13 is due in April. This plan illustrates how all the systems in HLW are integrated and the systems are run as one. Tank Space is monitored through a two-year rolling window. Mr. Piccolo referred to a chart that illustrates how HLW can look at any given date, and see if all schedules, requirements, and commitments are being met. HLW is looking at vulnerabilities and tank repair, if necessary. The Vulnerability Assessment along with the compensating actions for it is being delivered next week. HLW also does a Tank Repair Assessment. The Tank Repair Assessment Report will also be out next week.

Mr. Waters and Ms. Patterson asked about sludge and sludge batches. Mr. Piccolo explained a sludge "recipe"; the sludge feed schedule into DWPF, and the future sludge preparation cycle. With this first sludge batch, HLW learned much about temperature controls and chemical processing. There will also be some future learning curves.

Mr. Holcomb asked how one knows when a sludge batch has been adequately "washed". Mr. Piccolo answered that HLW has built a suite of samples that makes environmentally acceptable glass. HLW knows the chemical combinations that make good glass and a sludge washing campaign to eliminate any "bad" glass. HLW also takes samples in DWPF's slurry mix evaporator before glass is made and compares them to the sampling studies.

Mr. Piccolo then showed two charts that HLW updates weekly concerning Type III tank space. These charts monitor the space necessary to meet the HLW System Plan, the space necessary for desired system flexibility, the current projection as of data date, the actual working inventory and the actual adjusted for accelerated activities. Mr. Piccolo indicated that HLW is in good shape on recovery of tank space

Mr. Piccolo continued by discussing Tank Closure. The waste has been removed from Tank 19, and it is in the closure process. The technical report is due out in two weeks. Tank 18 is on schedule for closure. Tank 18 waste is scheduled for removal to Tank 7 in August. Tank 7 is the sludge Batch 3 feed material. Sludge batch 3 will contain the Americium/Curium (Am/Cm) material transferred from the canyons.

The key to salt processing is maximizing the existing facilities for use in the caustic side solvent extraction (CSSX) process and minimizing the amount of material that has to go through that process. In order to do this, HLW must determine material (low curie salt) suitable for disposal at SS. Tanks 41, 31, 38, and 29 have been identified as possible waste feed for this process. The next step is to find more tanks with low curie salt that will require an actinide removal process without going through the full CSSX process. Obviously, the HLW goals are to empty more tanks faster and to continue immobilization by vitrification and grout. Mr. Piccolo wants to continue balancing glass and grout so that there are no salt only canisters.

The HLW next steps involve completing the Waste Incidental to Reprocessing (WIR), beginning salt dissolution in the next 60-70 days, and maintaining communication with customers, stakeholders, the technical community, and regulators. Mr. Piccolo believes that HLW will be ready to deliver a detailed update to the CAB in three months.

Mr. Piccolo closed his presentation by noting that HLW has plans to accelerate the liquid waste removal from old style tanks, to continue support for the CSSX engineering procurement and construction (EPC) contractor, to ensure feed capability for the CSSX facility, and to evaluate use of all technologies for minimizing tank farm influents and maximizing the effluents.

Parallel Salt Disposition Strategy Draft Motion Review

Preceding the draft motion review, Wade Waters noted that the SRS CAB is still concerned about tank space and in order to be sure that work continues on tank space management, the CAB would like to be kept apprised of HLW's activities on this issue. Mr. Waters then reviewed the draft motion and noted that since the existing National Environmental Policy Act (NEPA) process did not fully answer the question as to whether the low-curie saltcake can be sent directly to Saltstone without additional processing, there could be a procedural roadblock that could delay the project and interfere with the Federal Facility Agreement (FFA) Closure Schedule. Therefore, in order to resolve any questions about the low-curie saltcake strategy and to ensure compliance with the FFA Closure Schedule, Mr. Waters said that in the draft motion, the CAB is recommending that SRS determine the permit and regulatory requirements (i.e., NEPA, Incidental to Reprocessing determination, etc.) and report back to the CAB by April 23, 2002. Mr. Waters said the draft motion was also recommending SRS to provide a synopsis of the technical plan to process the first 100,000 gallons of low-curie saltcake without further processing and identify costs, funding needs, and projected milestones and timelines to make the determination on the low-curie saltcake issue.

The WMC agreed that the draft motion needed no further discussion and recommended that it be presented to the full Board at its meeting the next day, January 15, 2002.

Low-Activity TRU Facility Draft Motion Review

Wade Waters provided background information on the draft motion by noting that a state-of-the-art technology known as HANDSS-55, which is currently under development be adopted by SRS as the preferred method to treat low-activity transuranic (TRU) waste. In order to ensure worker safety, this HANDSS-55 remote handling system is being developed to sort, segregate, and repackage low activity drums of TRU waste that do not meet the waste acceptance requirements for shipment to the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico.

The draft motion also recommends that SRS proceed with the plan modification for a Low Activity TRU Facility (LATF) to house the HANDSS-55 system; provide a status update on the regulatory permits associated with the LATF and the progress of the HANDSS-55 technology installation until it is operational; and identify any potential cost savings, technology enhancements, or management modifications, which could potentially speedup the disposition of SRS TRU waste.

During a general discussion of the draft motion, a suggestion was made to remove a sentence under the comment section that referred to transportation of radioactive waste shipments since there is no direct correlation between transportation issues and HANDSS-55. Ms. Villasor was asked to make the correction to the draft motion before it was presented to the full Board at its January 15, 2002 meeting.

PUREX Recovery Alternatives Draft Motion Review

Perry Holcomb, PUREX Technical Lead of the Consolidated Incineration Facility (CIF) Focus Group explained that in the current continuous PUREX recycle process in the Canyons, the PUREX solvent becomes more and more radioactive as a result of breakdown of a small portion of the solvent and its pickup of radioactive contaminants. Noting that the radioactivity levels of this future waste stream will be significantly lower than the current legacy waste, Dr. Holcomb said the anticipated levels of radioactivity will present treatment challenges. Therefore, the SRS CAB believes the PUREX recovery process should be reexamined to more optimally balance its continued usefulness in the process versus the criteria it must meet for subsequent treatment and disposal as a waste.

After a general discussion of the draft motion, there was a suggestion to modify a portion of the recommendation. Ms. Villasor was asked to make the corrections to the draft motion before it was to be presented to the full Board at its meeting the next day.

Public Comment

While there were no public comments, Mr. Waters did announce that the Alternatives to Incineration Stakeholder Forum was scheduled to be held June 7-8, 2002 in Denver Colorado in the event someone from the WMC or the CIF Focus Group would be interested in attending. Mr. Waters also announced that Ms. Villasor had forwarded an e-mail on incineration issues from the Oak Ridge Citizens Advisory Board to members of the WMC and the CIF Focus Group.

Wade Waters adjourned the meeting at 8:30 p.m.

Meeting handouts may be obtained by calling 1-800-249-8155.