SRS Citizen's Advisory Board

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Waste Management Committee

Aiken Federal Building, Aiken, SC
September 8, 2003

The SRS Citizens Advisory Board (CAB) Waste Management Committee (WMC) met on Monday, September 8, 2003, 5:00, at the Federal Building, Aiken, SC. The purposes of the meeting were to discuss the Tank Space Management, Waste Removal, the Site Treatment Plan, and to receive public comment.

Attendance was as follows:

CAB Members
-Bill Willoughby
-Bill Lawless
Gerald Devitt
-Murray Riley
-Harold Rahn
William Lawrence
Leon Chavous

Stakeholders
Bill McDonell
Bud Weismantel
Lee Poe
Karen Patterson
Bruce Wiseman

Rick McLeod*

DOE/Contractors
Charlie Hansen, DOE
Alice Doswell, DOE
Mike Johnson, WSRC
Dennis Godbee, DOE
Ron Campbell, WSRC
Julie Petersen, DOE-OEA
Sonny Goldston, BNFL-SW
Joe Carter, WSRC
Gail Spader, DOE
John Knox, DOE
Teresa Haas, WSRC
Kelly Way, WSRC
James Hamilton, WSRC
Dean Campbell, WSRC
Elmer Wilhite, WSRC
Tony Polk, DOE
Tom Tregar, DOE
Bill Condon, WSRC
Bruce Lawrence, WSRC
Fran Williams, WSRC
Terry Spears, DOE

Regulators
Tom Burns, DNFSB

*CAB Technical Advisor
-WM committee members
+Facilitator
^Press

Bill Willoughby called the meeting to order at 5:00. He welcomed those in attendance and asked for introductions. He then introduced the first presenter, Charlie Hansen.

Charlie Hansen, Waste Disposition Projects, AM DOE-SR
Mr. Willoughby asked Mr. Hansen to discuss the status of tank space in the SRS high level waste system.

Mr. Hansen told the committee that he appreciated the CAB's support. He stated that he had read the recommendations from the CAB for the past several years and that those recommendations accurately depict the status and needs of the high level waste system for the near and long term. He added that removal of salt cake from the tanks remains the critical path issue for acceleration of risk reduction posed by high level waste stored in tanks at SRS.

DOE continues to consider waste removal from these tanks as soon as possible the most significant risk reduction action that can be accomplished. The strategy for acceleration of risk reduction continues to be included in the Environmental Management (EM) Performanace Management Plan (PMP). The plan focuses on evaporation of water, sludge removal, and a three-prong strategy for disposition of salt cake. The first strategy is dissolution of salt cake and subsequent grouting and disposition to the Saltstone vaults. Second is dissolution, actinide removal, and then grouting with disposition to Saltstone vaults. Finally, the third prong is removal of actinides and cesium in a Salt Waste Processing Facility (SWPF) which will utilize a caustic side solvent extraction process (CSSX). A design competition is in progress, and plans are to have this facility operating by 2009. DOE considers the SWPF planning to be on track with low technology and engineering risks.

Mr. Hansen pointed out that despite problems in implementation of SR projects, DOE is confident that it can meet the regulatory Federal Facilites Act (FFA) commitments and even accelerate the schedule. In addition, depending on decisions regarding size of the SWPF and bringing other low curie salt processing capabilities on line, the EM PMP acceleration of high level waste disposal by 2019 remains possible. Short delays in resolving the Idaho judgment regarding DOE use of the Waste Incidental to Reprocessing (WIR) process can be accommodated in the near term without impacting on EM PMP success.

Mr. Hansen pointed out that PMP acceleration compared to the FFA counts on the success of the planned low curie salt initiatives. SR has established a contract with WSRC that sets as goals the removal of waste from non-compliant tanks in F and H Areas, continued optimum operation of DWPF, and removal of a significant amount of salt cake, all before the end of 2006. This challenge depends on having the tank space to dissolve salt cake, to accommodate DWPF recycle, and to handle the removal of waste from the non-compliant tanks. Unless salt cake dissolution is started right away, these contract objectives will be in jeopardy. Without salt cake dissolution right now, there should be sufficient space to maintain DWPF disposition of waste through vitrification, but waste removal from non-compliant tanks would be delayed.

The SWPF is currently in the conceptual design phase. This facility is planned to handle the most highly radioactive salt cake with removal of cesium and actinides planned for disposition through DWPF.

WSRC advised SR last week that approval of SCDHEC permits are required in the near term in order to operate the Saltstone facility and to dispose of grouted material, (with Tank 41 dissolved salt cake used as feed). While WSRC states that the amount of radioactivity in Tank 41 dissolved salt is higher than previously expected, WSRC states that the final feed from Tank 50 to Saltstone will meet the criteria established in the proposed operations and landfill permits. Mr. Hansen advised, however, that SCDHEC does not consider permit approval at this time

warranted, based on the DOE use of the WIR process as a basis for these planned operations and disposal.

Mr. Hansen indicated that SR and SCDHEC are working toward interim progress in salt cake disposition ahead of any final resolution of the Idaho judgment, since it is not known when resolution will be achieved. Hr. Hansen pointed out the DOE had moved quickly (as suggested by the CAB) to attempt resolution of this matter through legislation and by an appeal to the Idaho judgment.

Mr. Hansen also stated that SCDHEC and SR continue to work on ways to achieve waste removal from high level waste tanks ahead of resolution of the Idaho judgment. While the current FFA commitments for tank closures provide for grouting the tanks when empty, working toward an interim status ahead of final closure appears possible. Acceleration of tank waste removal, however, still requires that progress in removal of salt cake be achieved ahead of removing waste from large numbers of tanks, which is the DOE goal.

Mr. Hansen then briefed the committee on the progress achieved in DWPF with melter 2. He pointed out that recent setbacks in production goals appeared to be related to increased waste loading in each canister. WSRC and DOE were working these issues.

Mr. Poe had a concern with the technology problems at SRS including the increased waste loading in the DWPF canisters and the radioactivity levels in Tank 41. Mr. Hansen stated that subsequent to replacement of the DWPF melter, WSRC had achieved about 30% more waste loading in each canister but that recently production problems at that waste loading had developed. WSRC has a task team in place to assess the problems and find ways to get production levels back to those projected. Mr. Hansen also stated that radioactivity levels in Tank 41 were higher than expected and that WSRC was proceeding with a blend strategy like that used for sludge batches. This will be followed closely as salt cake dissolution proceeds. There may be a need to proceed with upgrades to Saltstone shielding sooner than originally anticipated.

Ms. Patterson expressed concern about the WIR lawsuit and the suggestion that any waste left behind is contrary to the Nuclear Waste Policy Act (NWPA). Mr. Hansen stated that DOE and the regulators are working with the Congress to bring a resolution to this matter.

Mr. Poe expressed concern over the WIR process. He believes that more dialogue is needed, and that DOE should negotiate with the regulators. Mr. Lawless asked about milestones, commitments, and tank space. Mr. Hansen stated that the baseline remains the same as the one delineated in the PMP modification to Revision 13 of the SRS High Level Waste Plan. He did not consider sufficient experience gained at this point to propose any changes to that document which lays out planning for tank space, waste removal and disposition progress. Mr. Hansen suggested that a detailed briefing toward the end of this year would be informative in assessing current problems and progress compared to that baseline.

Tony Polk, Federal Project Director, DOE
Mr. Polk said that he was here to address the issue of waste removal from tanks with a leak history. There are plans in place to deal with these tanks.

He used Tank 16 as an example. Tank 16 had over 350 known leak sites, required four slurry pumps, and included acid cleaning. All visible waste has been removed. This is the only tank in which the leaks spilled over the annulus, and 100 gallons leaked to environment. The annulus still has waste in it.

Tank 16 demonstrated that actions could be taken to prevent or mitigate leakage.
To detect and minimize leaks, the site can operate an annulus air system to keep annulus air dry. SR can also maintain the liquid level in the primary tank below the known leak sites, or maintain liquid level in primary above the lowest leak site for as short a time as possible. Other measures would be to use supernate to slurry the waste and maintain increased surveillance in the annulus.

To mitigate the leaks, the site maintains 100% task readiness to respond by ensuring that annulus jets are available for use. They are task ready to transfer the annulus waste to the primary or to transfer waste from the primary to another tank. SR has a new transfer pump with variable suction elevation, a qualified transfer route, and approved procedures and operating plans with contingencies for leaks.

To summarize, Mr. Polk stated that the potential to reactivate a leak site during waste removal from an old syle tank is a manageble issue. Operational controls are in place. If reactiviation occurs, then SR is ready to respond. The annulus holds about 23,000 gallons of waste. The transfer rate out of the annulus is 75 gallons per minute (gpm) versus a maximum leak rate observed in Tank 16 of 4 gpm. The transfer rate out of a primary tank is 150-200 gpm. In addition, all of the key equipment is new.

When asked about waste removal from the annulus, Mr. Polk responded that the site is trying to understand what it needs to do to clean annulus. There is a team looking at heel removal and annulus cleaning processes. Tank 16 will be the biggest challenge for removing waste from the annulus. The waste has solidified and is in the duct work.

When Mr. McLeod asked about WOW, grouting, and tank closure, Mr. Polk responded that the site can remove waste and clean the tanks down to where the next step would be grouting and closing the tank. He reminded the group that he is focusing on sludge tanks and that until a disposition path is opened, SR won't be moving much salt.

The group discussed writing a motion recommending the site clean the tank and then clean the annulus as well, before moving on to another tank. After discussion, they opted to review the outstanidng recommendtion on annulus cleaning and not write a new one at this time.

Alice Doswell-Acting AM Closure Unit-DOE
Ms. Doswell spoke to the committee about the Site Treatment Plan (STP) Renegotiations. On September 2, 2003, DOE and Westinghouse Savannah River Company (WSRC) representatives met again with SCDHEC to finalize revisions of the SRS STP and Consent Order in order to

provide flexibility for accelerated cleanup goals in the Project Management Plan. DOE provided a simplified method for calculating accelerated “cleanup credits” based on DHEC-perceived importance.

Revised language for modifications for the STP and Consent Order to incorporate the cleanup credit concept were also discussed. A schedule to finalize and obtain approval of a revised Consent Order and STP by the end of September 2003 was discussed, as well. The STP is an enforceable agreement with DHEC that requires SRS to identify and treat mixed waste and render it less hazardous. The schedules and milestones must be met.

Cleanup credit builds flexibility up front on how to deal with a new waste with which there is no known disposition path. This revision is an attempt to build more flexibility into the agreement.

The concept works this way. SR is still negotiating with DHEC. If acceleration is achieved for specific cleanup activities, then credits are earned. Credits can be applied to extend a schedule or offset a commitment.

Ms. Doswell next gave examples of possible credits. These credits will be written into a Statement of Understanding rather than in the STP. DHEC has taken each possible clean up credit and rated them “high, medium, or low” depending on its priority with DHEC.

Mr. McLeod asked specifically about PUREX. Ms. Doswell responded that the current plan for F canyon solvent is not to disposition within the contract period. Therefore, if SR shipped it off site sooner than 2006, then DHEC could give us credit for it.

She reiterated that this revision is still in the discussion stage, and the formula for the lists hasn’t even been developed yet. Whatever the unit value turns out to be, the concept is to assign weight values to slippages and weight values to credits. SR doesn’t want to miss commitments, or use the credits. They are simply building more flexibility into the agreement. The goal is to have the agreement completed by September 30. The Annual STP update is November 15. Ms. Doswell added that DOE wanted to make sure the committee knew what was going on.

Ms. Patterson expressed concern over the amount of work required for the twenty remaining commitments. Ms. Doswell answered that DHEC is reaping some benefit from this process. SR added some new commitments and gave DHEC more “real time” involvement in what SR is doing across the PMP. From DHEC’s perspective, it is worth the time. There are boundaries on how SR can use the credits. One example of the boundaries would be that a year is the maximum time allotted to use a credit. SR can’t “carry” the credit past one fiscal year.

Mr. Poe believes that SR is giving away too much. Why give DHEC points for commitments that SR is going to meet regardless of a STP Revision? Ms. Doswell responded that this is an overall strategy to get regulators on board with clean up; however, this is only one prong in getting that job done. SR is looking at over-all context of regulatory flexibility. SR is looking at this holistically.

Mr. Lawless responded that the STP is an area that gives us more flexibility. He said that the DOE is trying to incentivize the management side, which he believes is a good idea. He would like to see more details and offered DOE a “pat on the back” for bringing the committee an issue so early in the process. He said it was a good attempt, and he’d like to see more.

Mr. Willoughby then led a discussion of possible recommendations. He stated that draft recommendations were due by Friday, close of business. A general discussion of recommendations followed in which it was noted by Ms. Haas that the board is chartered to make recommendations and give advice to DOE. If these recommendations aren’t recorded, then they are lost. Mr. Poe added that he sees many independent evaluations made by the various committees. In his opinion, this speaks highly of the organization. He added that the recommendations are not trivial. They cause the site to think about what the public is saying, and puts the site and DOE on record.

Action items
Annual Radioactive Waste Tank Inspection Program Report—Bill Willoughby and Lee Poe

Mr. Willoughby adjourned the meeting at 7:40