



SRS Citizens Advisory Board

Consolidated Incineration Facility Focus Group

Meeting Summary

February 5, 2002
Aiken Federal Building
Aiken, SC

The Consolidated Incineration Facility (CIF) Focus Group met at the Aiken Federal Building on February 5, 2002. Attendance was as follows:

FG Members

Wade Waters*
Bill Willoughby*
Perry Holcomb*
Karen Paterson
Doug Leader
Lee Poe

Stakeholders

Rick McLeod, CAB Tech. Adv.
John Meyer

Regulators

None

DOE/Contractors

Ray Hannah, DOE
George Mishra, DOE
Julie Petersen, DOE
Sam Kelly, BSRI
Marshall Looper, WSRC
Lyddie Broussard, WSRC
Helen Villasor, WSRC

*Denotes CAB members

Bill Willoughby, CIF Focus Group Administrative Lead, opened the meeting promptly at 5:00 p.m. and thanked everyone for attending. After asking for introductions, Mr. Willoughby introduced Sam Kelly, the Solid Waste Division's Vice President and General Manager.

Dr. Kelly expressed his appreciation to the members of the SRS Citizens Advisory Board (CAB) for its strong support of several Solid Waste program accomplishments, including the opening of SRS's Engineered Trench and the firstever, five shipments of waste offsite. Dr. Kelly said that for more than five years, the Solid Waste Division (SWD) has been integrating public involvement with many of its program operations and activities into its SWD Strategic Plan.

Dr. Kelly said he was here to once again thank the CIF Focus Group for its strong support in response to the announcement that CIF was going to be placed in a shutdown mode. Since then, Dr. Kelly noted that the group has followed diligently all activities related to PUREX and the downselect process of alternative treatment technologies for PUREX. Dr. Kelly also thanked the group for the recommendations regarding CIF that have been officially submitted to the Department of Energy (DOE) and commended the group for a "job well done". In closing, Dr. Kelly offered congratulations to Wade Waters on his appointment as Chair of the SRS CAB and to Bill Willoughby, the new Chair of the Waste Management Committee.

Public Comment

There were no public comments.

PUREX Waste Alternative Treatment Evaluation Status

Marshall Looper, substituting for Peter Hudson, opened his presentation by reviewing the Alternative Treatment Study, whose purpose was to evaluate alternative treatments to the CIF for PUREX waste by using a Systems Engineering Approach to select and develop the best alternative treatments. In addition, the study compared the best alternative treatments with optimized CIF treatment. Mr. Looper said that the information he was presenting was a review of several previous CIF Focus Group presentations on the alternative treatment study; however, his presentation would eventually lead to the point where new information would be presented on the current status of the study.

Beginning with a review of the Systems Engineering approach, Mr. Looper outlined the steps in the process and explained that where the study team has now progressed to is at the two steps at the bottom of the list. The two steps left to be performed include ranking the short list and selecting the preferred option, and to peer review the process and results. When asked about the timelines for the completion of these steps, Mr. Looper said it was important to look at the big picture of where the team is now.

In reviewing the short list evaluation results, Mr. Looper noted that for the organic waste most of the research and development (R&D) work requiring time and effort had been spent on researching the stabilization process and offsite commercial treatment. For the aqueous phase, the team evaluated sending it direct to Saltstone (a regulatory permit would be needed for tanker unloading); direct stabilization (if chosen for the organic phase); Tank 50 to Saltstone or using the High Level Waste (HLW) evaporator and then sending the soluble organic content to the Defense Waste Processing Facility (DWPF). Mr. Looper then reviewed the respective graphs depicting the four treatment paths. When asked about the feasibility of the Saltstone Facility, Mr. Looper responded that the facility is scheduled for restart in April.

The study team investigated the short list in detail and found that for the organic waste, waste stabilization would comply with treatment and disposal requirements while pretreatment would remove alpha-emitting radionuclides. However, for commercial treatment, because of the high specific alpha activity, Department of Transportation (DOT) requirements would allow only 19 gallons of waste to be shipped at a time and it would have to be diluted by 50 percent. Another reason of consideration is the possibility of exceeding the waste acceptance criteria (WAC) of offsite vendor treatment because most offsite vendors do not have the capability for handling high alpha materials. For the aqueous waste, Mr. Looper said the team had looked mostly at onsite treatment where it could be transferred to Saltstone and combined with a grout mixture for stabilization. However, using the HLW Evaporator System would reduce volume, where the overheads would go to the Effluent Treatment Facility (ETF) and out, and the waste would be transferred to Tank 47. When asked if these were the treatments that could actually be performed, Mr. Looper said they were the treatments that the team's evaluation process ended up with and had made the short list.

Mr. Looper then discussed the waste stabilization study and passed samples of stabilization materials such as NoChar and Petroset around the room. In response to a question concerning the consistency of the clay material, Mr. Looper said when it was mixed in a beaker it looked much like dried peanut butter. Mr. Looper said that there were several differences among the stabilization materials being tested and those products that did not meet the criteria had been eliminated. When asked if the study team had closed in on a final product, Mr. Looper responded that it had not since this is part of the work that must still be completed during the remainder of the year.

Addressing waste durability, Mr. Looper said some of the tests included transportation and disposal stability. Transportation/Storage Stability tests included accelerated aging, vibration cycling and thermal stability. For disposal, tests included radiation stability, microbial degradation, free liquid test, Iodine-129 leachability, saturated water leaching and pressure stability. When asked about the Iodine-129 leachability, Mr. Looper said that this test was almost complete; however, the detection limits appear not to be low enough to ensure that the wasteform can go to the E-Area Waste Management Facility (Burial Ground). Additional tests are being scheduled in April and May to evaluate further results. Dr. Holcomb said that Iodine-129 contains a low energy proton and is easily contaminated; therefore, Iodine-129 is a difficult analysis to perform. Dr. Holcomb suggested that a split sample be considered and proposed that

the Savannah River Technology Center (SRTC) perform one test, while GEL, a laboratory in Charleston, SC conducts another.

When Mr. Looper reached the portion of his presentation that concluded the review of past presentations on the alternative technologies study, he addressed the final evaluation approach and said the team had used the same criteria-based methodology as in the initial evaluation (long list-to-short list alternatives). The major evaluation criteria used were lifecycle cost, regulator acceptance, operational flexibility (ability to take the process up and down in addition to the future PUREX from the canyons), stakeholder acceptance and final waste form.

Mr. Looper said that the final alternative evaluation rankings are as follows:

1. Direct Stabilization / Tank 50 (aqueous) to Saltstone - Preferred option
2. Direct Stabilization/Direct to Saltstone
3. Direct Stabilization/Direct Stabilization
4. CIF / Tank 50 to Saltstone
5. CIF / Direct to Saltstone
6. Consolidated Incineration Facility

Mr. Looper emphasized that the numbers represented the ranking, not the options. Noting that the team's investigation looked at the weights of the criteria and switched them around to see how they impacted the score, Mr. Looper said the team found that the final rankings on the top three or four were not impacted. Therefore, based on the team's findings, the preferred option in the downselect process is to transfer 13,000 gallons of the aqueous waste to Tank 50 in fiscal year 2003 and to treat the waste in Saltstone during Low Curie Salt Processing. The backup option is direct transfer to Saltstone and treat during ETF bottoms processing (requires modification or one-time exemption to the permit).

For the organic waste, the preferred option is to stabilize 25,000 gallons and dispose at either the Nevada Test Site (NTS) or SRS (depending upon the results of further Iodine-129 studies). The plan would be to construct an organic stabilization facility in H Area or subcontract to a commercial vendor (at the lowest cost) and begin CIF closure after demonstrating treatment of ten percent of organic volume. The Site Treatment Plan (STP) commitment is to treat the legacy waste by the end of fiscal year 2009.

Mr. Looper closed his presentation by noting that a final peer review was held on January 16-17, 2002 and consisted of panel member experts. Mr. Looper indicated that the results of the peer review appeared to concur with the findings of the Alternative Technologies Study team; however, the final panel recommendations report is not expected until February 8, 2002.

Following Mr. Looper's presentation, many questions were raised. For example, group members wanted to know about the funding strategy for this project because of the shrinking budgets within DOE. They also wanted to hear more about the shift from R&D work to project space. Some members were concerned that stakeholder acceptance was given little or no consideration since they had no opportunity to review reports or develop comments. Still, others were concerned if CIF would still remain a viable option until ten percent of the organic volume treatment had been demonstrated. However, some members expressed complete satisfaction over the many technologies that had been considered in the study and were deeply impressed with the wastefrom work that had been completed.

CIF Regulatory Update

Ray Hannah discussed the Resource Conservation and Recovery Act (RCRA) Permit Modification request that had been submitted to the South Carolina Department of Health and Environmental Control (SCDHEC) on January 8, 2002. Mr. Hannah said that this was a very positive story and expressed his appreciation to the focus group for its interaction on several regulatory issues related to CIF. In the request SRS asked SCDHEC to consider the following:

- If SRS decides to pursue an alternative, it would submit annual progress reports and request extension of CIF closure
- Within 45 days of denial of extension request, SRS would commence closure
- To delete the monitoring requirements for the condensate tanks

Mr. Hannah said that discussions were held with the Assistant Secretary to ensure that DOE-HQ was in agreement with the actions being undertaken at SRS regarding CIF.

SCDHEC issued Notification on January 15, 2002, and the Permit Modification Request Letter began a 60-day public comment period, which ends March 9, 2002. A public meeting was held January 30, 2002 at the Aiken County Public Library where it was announced that all written comments would be considered in the final regulatory decision. Bill Willoughby noted that he had asked CIF Focus Group members to attend this meeting. In closing, Mr. Hannah provided additional information on where to send comments.

Lee Poe expressed his opinion that comments may or may not strengthen the focus group's position and asked about the usefulness of providing comments to the regulators. Wade Waters said that the worst thing the focus group could do is not show its support to the hard work that has been achieved with the regulators on CIF. E-mail from Bill Lawless was read asking that a positive letter be prepared and provided to SCDHEC as part of the public comments the agency is soliciting. Bill Willoughby asked Rick McLeod, the CAB's technical advisor to prepare a letter to SCDHEC and send it to the focus group by e-mail for comment.

CIF Focus Group Charter Extension/ Stakeholder Forum Discussion

Before beginning discussion on these topics, Bill Willoughby noted that the focus group needed better information on the stabilization process and asked for a presentation on this topic at a future meeting.

Regarding the future of the Focus Group, Bill Willoughby said the group had three options and asked for comments on the path to take. The options are as follows:

1. Shut the focus group down on June 26, 2002, the end of the group's charter date
2. Ask the CAB for an extension
3. Begin a new focus group and rename it PUREX Disposition

Lee Poe commented that once the decision to close or restart CIF has been made, there should be a fourth option to include watching over the process until there is a clear decision on the F-Canyon organic PUREX waste. Other comments that arose included continued following of the PUREX legacy waste since the work is not yet complete; a decision does not have to be made now since there is time before the June due date; to think about a path forward and not discuss it again until late May or early June. Perry Holcomb asked that the extension discussion be continued at the next CIF Focus Group meeting to be held on March 19, 2002.

With respect to the stakeholder forum to be held in Denver, CO on June 7-8, 2002, the group agreed that it should send a local delegate to the Forum and suggested Perry Holcomb attend since he is a CAB member. Dr. Holcomb said that as a member of the Alternative Technologies to Incineration (ATIC), a subcommittee of the Environmental Management Advisory Board (EMAB), he was uncertain if DOE-HQ would be willing to cover travel and per diem expenses for travel for himself and Lee Poe, another member of ATIC. It was agreed that if DOE-HQ would not cover expenses for the ATIC members, then Dr. Holcomb and Bill Willoughby should attend since they are CAB members. Wade Waters, CAB Chair said he would follow up on the request to send two CAB members to the Denver National Stakeholder Forum.

It was also recommended that the CAB provide comments on the draft agenda for the Forum that was sent by Noleen Tillman. Helen Villasor mentioned that the request for comments on the draft agenda had been sent by e-mail to the CIF Focus Group.

Public Comment

There were no public comments.

Bill Willoughby adjourned the meeting at 7:30 p.m.

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