



## **SRS Citizens Advisory Board**

### **Consolidated Incineration Facility Focus Group**

#### **Meeting Summary**

October 16, 2001  
North Augusta Community Center  
North Augusta, SC

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The Consolidated Incineration Facility (CIF) Focus Group met at the North Augusta Community Center on October 16, 2001. Attendance was as follows:

#### **CAB Members**

Wade Waters\*  
Bill Willoughby\*  
Perry Holcomb\*  
Mike French  
Doug Leader  
Bill Lawless  
Lee Poe

#### **Stakeholders**

Rick McLeod, CAB Tech Advisor

#### **Regulators**

None

#### **DOE/Contractors**

Ray Hannah, DOE  
George Mishra, DOE  
Sachiko McAlhany, DOE  
Tony Maxted, BNFL  
Marshall Looper, WSRC  
Peter Hudson, BSRI  
Michael Chandler, WSRC  
Helen Villasor, WSRC

\*Denotes members of the CAB

Wade Waters opened the meeting promptly at 5:00 p.m. and expressed his appreciation to everyone for attending. Mr. Waters announced that the Alternative Technologies to Incineration (ATIC) presentation was being removed from the agenda since the presenter was out of town.

#### **Public Comment**

There were no public comments.

#### **CIF Update**

Ray Hannah reported on the status of CIF, including an update on the SRS Alternative Technologies Study and the current suspension mode. Mr. Hannah said that CIF remained in a suspension mode for all of 2001, and did not encounter any problems throughout the year. In addition, it was found that the surveillance and maintenance costs were far less than had been expected. When asked what SRS was going to do with the legacy PUREX, Mr. Hannah reported that the Savannah River Technology Center (SRTC) was completing its testing of the alternative technologies, including the pretreatment option as well as stabilization options such as NOCHAR, Petroset, Imbiber, etc. Mr. Hannah said that as soon as the durability testing had been completed, the SRTC report would be available by November 14, 2001.

Mr. Hannah said that SRS is also in the process of developing the CIF closure plan for the South Carolina Department of Health and Environmental Control (SCDHEC). However, SRS is still focusing on having all

of the demonstration testing completed so the information can be included in the closure plan. Mr. Hannah said it would not be an appropriate action to shut CIF down before the regulators have an opportunity to evaluate all of the data.

Mr. Hannah noted that SRS is still on schedule for the April 1, 2002 decision to either close or restart the facility. However, Mr. Hannah emphasized that ongoing negotiations with SCDHEC have been positive and that both the regulators and SRS are working through permitting issues and schedule information. After a recent presentation to SCDHEC, Mr. Hannah said that the regulators appeared to be agreeable to a closing date for closure way out in the future; however, it was important to continue dialogue with the state until official agreement between both parties is obtained.

When asked if Mr. Hannah believed the regulators were looking at CIF as a political issue, Mr. Hannah said that it was his impression that this was not the case. Mr. Hannah said that the state is definitely interested in the progress SRS is making on the alternative technologies and the final disposition path for the legacy PUREX waste. In fact, Mr. Hannah noted that SCDHEC has requested additional information on CIF that it would like to review.

In closing, Mr. Hannah said that by mid November, more information on the negotiations with SCDHEC would be available, along with the results of the SRTC study. Wade Waters asked Mr. Hannah to present a CIF update to the CAB Combined meeting on November 13, 2001 and a follow-up to the CIF Focus Group at its December 4, 2001 meeting. Mr. Hannah said that he would also like to include the DOE response to CAB Recommendation 141 at the November 13 meeting. Mr. Hannah was asked that if it were possible, the Focus Group would like to review an interim technical report that would include logic, strategy, schedule, or closure plan for SCDHEC at the December 4 meeting.

In responding to a final question regarding funding, Mr. Hannah said that money provided by the Mixed Waste Focus Area was allocated in the budget for Fiscal Year 2002 to continue the alternative technologies studies.

### **CIF Optimization Study Results**

Tony Maxted opened his presentation by saying that the CIF optimization costs had not yet been completed for his last presentation on this topic in August so he was here today to provide the answer that had been omitted earlier. However, Mr. Maxted first reviewed the CIF upgrades that would be required for optimization. The upgrades include inventory control (documentation upgrade to a Hazard Category 3); blowdown disposal (tankers and an unloading station); and contamination control (modifications to enclose CIF).

For costs to upgrade CIF, Mr. Maxted said that the cost of inventory control is \$320K; blowdown disposal would cost \$550K; and the cost for contamination control is \$8,087K for a total cost of \$8,957K. Contamination control includes enclosing the off-gas and CIF feed areas, containing the PUREX line, enclosing the new solvent storage tank area and upgrading the radiological monitoring area. In an aerial photograph of CIF that Mr. Maxted showed, he explained that the facility does have a roof; however, there are no enclosures surrounding the building.

CIF restart was estimated by two different methods according to Mr. Maxted. The first method is by comparison to actual start up in 1994, 1995, 1996 and 1997 (top down). The second method was by development of a detailed; resource loaded schedule for restart (bottom-up). This method also includes repermitting the facility, training workers, facility modifications, Maximum Achievable Control Technologies (MACT) compliance, etc. Responding to a question raised on whether the MACT Rule was still in Appeals Court, Mr. Maxted said it did not matter; CIF would still have to be in compliance with whatever emissions regulations were in force at the time of restart.

Mr. Maxted said that in terms of restart costs, the top-down method would cost \$42.8M and the bottom-up method would cost \$39.2M. Therefore, it was reasonable to use \$40M as the average start-up cost. Mr. Maxted noted that the original startup had cost \$60M, so it would be less expensive to start CIF back up this time. Overall, the fixed costs are \$40M for restart and \$8,957K for upgrades.

Mr. Maxted said that a CIF operational cost model was developed that consisted of a CIF annual cost of \$13M, CIF availability of 70 percent, CIF throughput at actual achieved rates, with a Saltstone cost of \$4.00 a gallon for the blowdown waste. The model output depicted an operational period of 41 days (six weeks) to dispose of all the PUREX legacy waste. However, Mr. Maxted added that it is reasonable to assume a six-week ramp-down in operational costs following completion of processing for post operations clean out and reassignment. The cost to process the PUREX in the model output is \$2,875K. In closing his presentation, Mr. Maxted said that the answer to the total cost to optimizing CIF is \$51,832K.

Bill Lawless said it was important to be mindful that CIF is a national asset. At this time in history, with our nation being at war with terrorists, other uses for CIF are logical. In addition, Dr. Lawless asked that DOE consider making a decision on the usefulness of burning PUREX.

### **Canyon's PUREX Solvent**

Responding to several requests by the CIF Focus Group to hear a presentation on the Canyon's PUREX solvent, Sachiko McAlhany said she was not entirely certain what the Focus Group had in mind in terms of a presentation. Nevertheless, Ms. McAlhany said that she hoped her presentation would help to explain the difference between the Canyon's PUREX and CIF's PUREX solvent.

Ms. McAlhany said that the Canyon's solvent does not contain the solvent impurities that impacted the CIF solvent. Noting that the most efficient process to maintain a high purity solvent is to minimize the conditions that degrade solvent, Ms. McAlhany said using solvent washing appears to be the most effective way to remove degradation impurities. Ms. McAlhany said that a study is underway by SRTC to evaluate the effectiveness of alumina scrubbing to remove residual degradation impurities, which are organic-soluble binding ligands. Ms. McAlhany then showed a graphic that explains the alumina scrubbing process that DOE is considering for use in the Canyons.

Bill Lawless asked that if the process is so successful why could it not be used for the CIF solvent? It was explained that chemistry makes the difference. In alumina scrubbing the Canyons would have control of the end product where it would be ensured that the end product would not exceed commercial waste acceptance criteria. In contrast, the CIF PUREX waste is legacy waste left from SRS production activities that arose during the Cold War.

Ms. McAlhany concluded her presentation by emphasizing that the alumina scrubbing process study is not yet complete; however, the results are expected by November. The path forward at this time is to re-evaluate optimum decontamination/scrub material (alumina has been proven to be most effective); determine final decontamination factors for various constituents; develop disposition options for use alumina; and integrate Separation's decontamination of solvent with CIF PUREX solvent final disposition options.

When it was noted that the CIF Alternative Technologies Study is being conducted in parallel with work on the alumina scrubbing for the Canyons, Bill Lawless, CIF Focus Group Technical Lead asked Ms. McAlhany if she would come back to the CIF Focus Group meeting that will be held on December 4 to discuss the Canyons study in more detail.

### **Public Comment**

Bill Lawless asked that his comments made earlier on the CIF being a national asset be added to the public record.

Before closing the meeting, Wade Waters announced the call made by the Environmental Management Advisory Board's (EMAB) ATIC Committee for input into the development of a national stakeholders forum on incineration. Mr. Waters suggested that the Focus Group consider by the December 4 meeting date, what input it should consider be sent to the ATIC and include this as a discussion item during the meeting.

Wade Waters adjourned the meeting at 7:30 p.m.

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