



## **SRS Citizens Advisory Board**

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

#### **Meeting Summary**

March 11, 2002  
Aiken Federal Building  
Aiken, SC

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The Consolidated Incineration Facility (CIF) Focus Group met at the Aiken Federal Building on March 11, 2002. Attendance was as follows:

#### **FG Members**

Wade Waters\*  
Bill Willoughby\*  
Perry Holcomb\*  
Jerry Devitt\*  
Jean Sulc\*  
Murray Riley\*  
William Lawrence\*  
Karen Patterson  
Doug Leader  
Lee Poe  
Mike French  
Bill McDonell

#### **Stakeholders**

Rick McLeod, CAB Tech. Adv.  
John Meyers  
Jim Pope  
Russ Messick  
Richard Herold  
Brandon Haddock

#### **Regulators**

None

#### **DOE/Contractors**

Ray Hannah, DOE  
George Mishra, DOE  
Howard Pope, DOE  
Sonny Goldston, WSRC  
Peter Hudson, BSRI  
Marshall Looper, WSRC  
Steve Pye, WSRC  
John Pierpoint, 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 welcomed the attendees. Mr. Willoughby then asked the attendees to introduce themselves.

#### **Public Comment**

There were no public comments.

#### **PUREX Alternative Treatment Final Report**

Peter Hudson opened his presentation by noting that instead of focusing on the detailed PUREX Alternative Study itself, he would provide a broad overview of the work that has been performed to date. Mr. Hudson referred to the flowchart for the CIF Alternatives Study to explain how the work in the study had been performed in parallel with the CIF optimization study over the past 20 months.

In his overview, Mr. Hudson said the systems engineering approach that the study team used included defining the requirements; identifying potential options; screening out the non-viable options; grading the

viable options, establishing a short list of a small number of options; investigating the short list in detail; ranking the short list and selecting the preferred option; and conducting a peer review of the process and results.

Mr. Hudson briefly reviewed the long list of alternatives, from which the short list has been derived. The short list of alternatives included the following:

- PUREX Organic Waste
  - Direct Stabilization
  - Offsite Commercial (with onsite pretreatment)
- PUREX Aqueous Waste
  - Direct to Saltstone
  - Direct Stabilization (if chosen for organic)
  - Tank 50 to Saltstone
  - High Level Waste (HLW) Evaporator/Defense Waste Processing Facility (DWPF)

Mr. Hudson provided the CIF optimized treatment cost, which is ~\$52M. Responding to a question as to how the operational cost data could be evaluated if no PUREX organic waste had been burned in CIF, Mr. Hudson explained that cost data for similar organic wastes was available; therefore, a major extrapolation was not required. After comparing the treatment costs by the options, Mr. Hudson said that the final evaluation results were as follows:

<u>Treatment Options</u>	<u>Score</u>
#3: Direct Stabilization/Tank 50 to Saltstone	72
#5: Direct Stabilization/Direct to Saltstone	68
#1: Direct Stabilization/Direct Stabilization	61
#4: CIF/Tank 50 to Saltstone	36
#6: CIF/Direct to Saltstone	31
#2: Consolidated Incineration Facility	28

After hearing that Direct Stabilization for both phases (organic and aqueous) was the preferred option, the Focus Group members raised several questions. For example, the group wanted to know if Tank 50 would be available since some members were under the impression that Tank 50 was going to be returned to HLW service. In addition, the group asked about training on the use of the stabilization process. Mr. Hudson responded that currently, Tank 50 will remain as the feed tank for Saltstone. He also responded that operator training and training costs had been included in the project cost data, and with stabilization being a simple process, approximately four operators and one manager would be required for the operation.

Lee Poe expressed his disappointment in the way the scoring had been presented in the PUREX Alternative Treatment Final Report. Mr. Poe said he had taken time to develop the data in a more understandable tabular form that he would like to present during the Report Working Session following Mr. Hudson's presentation.

Continuing with the presentation, Mr. Hudson said that in terms of the peer review results, the overall conclusion is that the peer review team concurred with the selection of stabilization as the treatment path for the legacy PUREX waste. However, the team did have some recommendations, including the following:

- Determine how the draft interpretive memorandum Environmental Protection Agency (EPA) regulations might affect stabilization of PUREX, and if necessary, perform the EPA test using surrogate materials.
- Continue the research and development (R&D) work to optimize waste loadings and evaluate mixing requirements.
- Perform surrogate tests at pilot and full scale to ensure effective scale up of the process.
- Identify a preferred and alternate disposal location for the stabilized PUREX.

Several questions about the peer review team recommendations were raised. For example, the group was interested in learning more about how the current EPA regulations would apply to different situations since one interpretation of the regulations is that they may deal specifically with soils containing hazardous materials. Noting that because there are inconsistencies in interpretations, Mr. Hudson said that further investigation into stabilized PUREX is warranted to ensure that the process will be in compliance with the EPA regulations. In response to a question as to who comprised the peer review team, Mr. Hudson said the team members included Greg Hulet, Transuranic and Mixed Waste Focus Area; Helen Belencan, DOE Office of Integration and Disposition; Paul Kalb, Brookhaven National Laboratory; Thomas Klasson, Oak Ridge National Laboratory; and Howard Pope, DOE-SR.

Mr. Hudson also addressed other considerations from the body of the peer review report related to disposal, i.e., the possibility of transporting the wasteform to the Nevada Test Site for disposal or direct disposal at SRS. However, Mr. Hudson reported that additional tests would be required to ensure that the wasteform containing constituents such as Iodine-129 meets the Waste Acceptance Criteria for disposal at SRS.

In closing, Mr. Hudson said that the PUREX study recommends the following:

1. Organic PUREX should be treated by a new stabilization process.
2. Aqueous PUREX should be transferred to Tank 50 for stabilization in the Saltstone Facility.
3. If Tank 50 is returned to HLW use, the aqueous PUREX should be transferred directly to Saltstone for stabilization.
4. Closure of CIF should not be initiated until 10 percent of the legacy organic PUREX has been treated.

Mr. Hudson responded to several final questions by noting that in terms of a timeline, some sort of National Environmental Policy Act (NEPA) action needs to be performed; risk is still a factor with the preferred technology; and that the recommendations from the peer review team would not delay the notification to SCDHEC on PUREX waste treatment. Mr. Hudson's final comment was that he hoped the Focus Group members had an opportunity to review the final report.

### **Working Session on Selection Process Report**

Bill Willoughby opened the discussion regarding the *Final PUREX Report* by noting that the Reference Section failed to mention the West Valley report. Mr. Hudson explained briefly that West Valley's experience with a form of stabilization had less than positive results since kerosene had eventually leaked into the groundwater. However, Mr. Hudson said that because the West Valley report failed to discuss the type of absorbent that was used, it was difficult to know exactly what had gone wrong. In defense of the current PUREX study, Mr. Hudson said that everything that could be done to investigate the stabilization process for PUREX had been accomplished with good results.

Lee Poe asked about steps the Focus Group could take to weigh in its opinion on whether or not the study was successful and if the CAB should go on record to say that the process is correct. While Mr. Poe said he agreed with the process that had been used and the conclusions reached, he had found some problems with the scoring chart that was used in the report. For example, Mr. Poe said that it was his opinion that the study team had placed too high a score on costs. Mr. Poe said that the report should also

describe the significance of the between scores of the options. Mr. Poe then used an overhead slide to show the numerical chart he had developed to identify the weighted scores and the score summary.

Other issues regarding the report were raised during the discussion. For example, the technology (stabilization) that has been described was not covered fully in the report and no references were provided on the work that had been performed. Some members thought that the peer review report should be included in the *Final PUREX Report* and a suggestion was made to develop a draft motion (CAB Recommendation) that would include comments such as the regulatory and stakeholder participation scoring was too low while costs were scored too high. There were additional suggestions to include the Focus Group's involvement and the CAB recommendations to the report. Perry Holcomb suggested that instead of rewriting the report, the mentioned items should be added as appendices.

Bill Willoughby suggested that the Focus Group appeared to be headed in two directions. The first is to agree that the system works. The second is to document all comments and provide them to Mr. Willoughby as items for consideration. Helen Villazor was asked to be the central contact for receiving the comments and submitting them to Rick McLeod, the CAB's technical advisor so that he could prepare a letter to be sent to the study team for inclusion in the *Final PUREX Report*. Wade Waters emphasized that the document would be incomplete until the peer review was also added as an appendix.

When asked what happens after the *Final PUREX Report* is submitted to DOE, Mr. Hudson said that the report would culminate in a decision to keep pursuing the alternative. Some members of the Focus Group said they were happy to see that the requirement to keep CIF as a viable option was still an option.

### **CIF Regulatory Update**

Ray Hannah opened his presentation by stating that it was an update to the information the Focus Group had been provided at the February 5, 2002 meeting. Mr. Hannah reiterated the request for the Resource Conservation and Recovery Act (RCRA) Permit Modification as follows.

- 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 Notification had been issued January 15, 2002 and the public comment period ended March 9, 2002. As of March 5, 2002, Mr. Hannah said that SCDHEC had received one comment, the letter sent to the agency by the Waste Management Committee.

Mr. Hannah then discussed the Site Treatment Plan (STP) and said it was currently undergoing revision. The revision will reflect the decision to pursue alternative treatment and commits to a fiscal year 2009 treatment date for all legacy PUREX. The STP is expected to be submitted to SCDHEC by April 30, 2002. Bill Willoughby reminded the Focus Group that a presentation on the STP would be made to the Waste Management Committee at the Combined Committees meeting on May 21, 2002.

### **Alternative Technologies to Incineration (ATIC) Update**

Perry Holcomb, member of the ATIC and the CIF Focus Group, provided an update on the work of the ATIC. Dr. Holcomb noted that he attended the second ATIC meeting in Washington on February 20-21, 2002. Dr. Holcomb outlined the briefings the group received from Gerald Boyd, Office of Science and Technology on R&D work; Gene Schmitt, Office of Program Planning and Budget on the fiscal year 2003 budget; Bill Owca, Idaho TRU Mixed Waste Focus Area and Vince Maio on the status of development for the Blue Ribbon Panel Identified ATI Technologies; Dr. Carl Anderson, member of the ATIC and Blue Ribbon Panel; and Martha Crosland on the Stakeholder Forum. Dr. Holcomb said that Jesse Roberson

also spent time talking to the ATIC on her strategy for the \$800M budget and defended her vision on how DOE will proceed in the future.

Dr. Holcomb said the group spent time discussing issues such as "real risk reduction at a site"; learned that DOE's high level waste inventory has increased not decreased; SRS reduced curies in its HLW inventory, but its volume had increased; and out of the scheduled site closures there have been 30 slippages in schedule. Dr. Holcomb also discussed some of the ATIC overarching questions such as "How global (INEEL vs. DOE Complex) is the role of the ATIC? Dr. Holcomb explained that because of these types of questions, the role of the ATIC has broadened in terms of determining how the ATIC can help DOE. Bill Lawless asked that a copy of the questions be attached to these minutes. In response to a question if the ATIC asked about the good work SRS was doing on stabilization, Dr. Holcomb said that it was recommended that Peter Hudson provide the PUREX report presentation to the ATIC.

### **CIF Focus Group Charter Extension**

Bill Willoughby opened discussion on extending the CIF Focus Group's charter by noting that most of the members agreed that the Focus Group does not have to follow the legacy PUREX work to final disposition. However, the group did agree that it should follow the work to the point of development of the actual selected process. Ray Hannah said that once the final selection of a material has been made, SRS would seek a Request for Proposal. The Focus Group agreed to "test the waters" for the summer and resume quarterly meetings beginning in the fall. Bill Willoughby suggested that the group should request an extension of its charter for one more year. Wade Waters, CAB Chair mentioned that a proposal should be prepared and presented to the CAB at its April 23 meeting. Helen Villasor was asked to prepare the proposal of justification.

### **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.***

Attachment: ATIC Overarching Questions/FAX Transmittal Lynar to Holcomb February 28, 2002