

# SRS Citizens Advisory Board

# **Consolidated Incineration Facility Focus Group**

### **Meeting Summary**

July 27, 2000 Hampton Inn Aiken, SC

The CIF Focus Group met on Thursday, July 27, 2000, at 5:00 p.m., at the Hampton Inn, Aiken, SC. Attendance was as follows:

#### **FG Members**

Wade Waters, CAB

Bill Willoughby, CAB

Ken Goad, CAB Murray Riley, CAB Karen Patterson, CAB

Bill Lawless

William Lawrence, CAB

Stakeholders Doug Leader Mike French

## **DOE/Contractors** Roy Hannah, DOE Peter Hudson, BNFL

Wade Waters opened the meeting at 5:00 p.m. Mr. Waters clarified the process of following the SRS CAB Focus Group Guidelines which uses a Charter Application Form. Mr. Waters said a focus group is the exact forum the CAB needs to use to identify and work on technical issues regarding the suspension of operations at CIF. Noting that CAB members may lack either time or the technical expertise found in focus groups, Mr. Waters explained that this was the rationale behind the WMC's decision to establish a CIF Focus Group and identified the following persons who have agreed to participate:

Wade Waters – (Administrative Lead) Bill Lawless – (Technical Lead) Karen Patterson William Lawrence Bill Willoughby Jean Sulc Perry Holcomb (Technical Lead for PUREX) Lee Poe Bill McDonell Jimmy Mackey Doug Leader

#### **Technical Support:**

Ray Hannah Peter Hudson Sonny Goldston Helen Belencan Public Involvement Support: Mary Flora Helen Villasor Kelly Way

Next, Mr. Waters reviewed the draft CIF motion for the attendees. The concern of the CAB is the disposal of the legacy PUREX waste; storage capacity for spent PUREX; and the availability of a replacement technology for incineration. Through the draft motion, the CAB is asking DOE to reverse its decision to suspend CIF operations and re-institute necessary funds to continue operation of CIF until DOE can fully justify its decision, and until such time that an alternative treatment option is available.

Mr. Waters asked for comment. There being none, he reviewed the agenda for the attendees.

<u>**CIF Alternative Study:**</u> Peter Hudson, BNFL, Inc., spoke to the group on the CIF Study and the work accomplished thus far by the study team. The study team is comprised of DOE and contractor representatives. DOE membership includes representatives from the following, the HLW Program, HLW Engineering, and Waste & Operations. Contractor membership includes representatives from the following: SWD Technical Development, CIF Engineering, SWD Mixed Waste Support and SRTC Waste Processing Technology. Mr. Hudson stated that the team has used the Systems Engineering Approach to define the requirements, to identify solutions, to screen out non-viable options, to grade usable options, to develop a short list, to investigate the short list, to rank the short list, to select the preferred option, and to peer review the process and results.

Mr. Hudson then detailed each of these steps in a flow chart for the group. He presented a total time scale that included the following:

- 5/31/00 Study group formed
- 10/31/00 Identify short list
- 11/1/00 Start lab development/demonstrations
- 11/30/01 Complete cost analysis
- 12/31/01 Select preferred option

He then presented Summary of Creativity Communication Results

- Reduce CIF costs
  - o Identify more feedstock
  - o Reduce high dilution factor
- Use other thermal destruction techniques, e.g. small incinerator or supercritical oxidation

There was significant discussion regarding Mr. Hudson's slide about the possible selection of an alternative. The discussion centered on the possibility of choosing an alternative that worked better than CIF, was cheaper to operate than CIF, and was as straightforward to permit as CIF. The group chose to invite DHEC to speak to the last issue at the August meeting.

Bill Lawless asked about the cost of building a replacement facility for CIF, which may or may not include a new, smaller incinerator. Mr. Hudson stated that the team doesn't have enough information to establish a ranking at this time. Mr. Hannah stated that DOE doesn't want to eliminate other vendors bringing in an incinerator on site.

Questions arose about the dilution factor and the Inspector General's report. Mr. Hannah clarified that the dilution ratio was 89:1 when the IG issued their report. But since then the facility has brought it down as

far as possible. Mr. Hudson stated that 50:1 is the lowest rate achievable under the current radiological classification. Mr. Hannah stated that the IG report was critical of the way SRS was running CIF. Also, at this time Solid Waste had eliminated a waste stream by proving that it was more cost effective to super compact solid LLW than to incinerate, thereby leaving PUREX as the only waste stream.

Bill Lawless questioned the unit costs. Mr. Hudson and Mr. Hannah answered that a simple process would probably save some costs. A much smaller scale would require fewer full time employees. DOE has requested the contractor lessen the numbers. A facility the size of CIF requires more workers. Dr. Lawless commented that there is no evidence that operating any facility like CIF or its alternative at SRS within the DOE complex that must honor all of the nuclear codes would be cheaper to operate than CIF.

Mr. Lawless stated that DOE-HQ had concluded, based on studies by INEEL and by an outside independent review panel, that incineration was safe, produced fewer wastes, and costs less by ½ than non-incinerator facilities. Also, the new alternative technologies have not been shown to work or to be licensed. He suggested SRS review some of these studies.

Mr. Hannah stated that on 9/30/00, SRS would shut down CIF and suspend operations. The permitting requirement and the STP commitment is to a FY09 disposition of half the PUREX waste stream. SRS needs three operating years to meet that commitment. 2006 would be the restart year. In 2002, SRS needs to decide whether to pursue an alternative or pursue restart.

Mr. Hudson continued with his presentation with a discussion of some of the alternatives.

- The non-thermal destruction techniques are likely to be expensive and don't eliminate all wastes
- Clean the solvent to simplify treatment, e.g., multi stage washing
- Clean the aqueous phase to simplify treatment
- Stabilize the solvent ready for disposal

Mr. Hannah re-emphasized that DOE has not eliminated the option of a mobile facility. Mr. Lawless asked for an early review of the search for alternative technologies by 4/1/01 that again may or may not be non-thermal.

Mr. Hannah stated that if CIF continued operations, backlogged PUREX could be complete by 2005. The PUREX in the canyons is not going to be ready until 2012; therefore, there would be a seven-year down time. Mr. Lawless reiterated that SRS could take care of legacy waste until 2005 and could identify an alternative that works by that time. He emphasized that there is a risk with regulators in attempting a restart. Also, there is added risk that environmental activists may file suit to keep the CIF from restarting. Moreover, there is a financial risk because it will cost more in 2005 than today to do the same job; therefore, the end result is an increase in the mortgage costs. Mr. Hannah clarified that CIF is below the cut line on the budget priority list. The money is not available to run CIF and has gone to higher priority programs. SRS is using the money from the FY-00 operating budget to shut down. Mr. French asked for a detailed financial breakdown of the budget.

Mr. Waters presented his concerns. He suggested keep CIF running, which would leave SRS 4-5 years to identify an alternative. Small tank precipitation, if selected as a replacement for ITP, would be on line a few years later; thereby, producing a benzene waste stream to be incinerated. By 2010-2011, the canyons would discharge more PUREX; therefore, in less that 23 years, SRS could cut up CIF and send to Nevada. Mr. Hannah stated that by 2010, the alternative salt processing could produce benzene. It is possible to shut down CIF now and restart in 2010 to burn all wastes.

When budget questions surfaced again, Mr. Hannah clarified that DOE is not spending 54 million dollars to shut down. Between 2000-2006, the surveillance and maintenance would be less than 2 million a year. Also, on September 30, 2000, clean out should be complete and operations will be suspended. After that,

no more waste will be burned. In April 2000, CIF stopped treating waste, but continued treating flush material. Mr. Lawless added that most of the 54 million dollars would be spent in restart.

*Issues:* The strong feeling that the site operates CIF until an alternative is found that is cheaper to operate than CIF, can be permitted by the State, and will produce fewer wastes than CIF. *Actions:* 

- Put the Systems Approach objectives in a timeframe for the FG
- The costs of a new non-thermal facility presented to the FG by 4/1/00.
- A detailed financial breakdown of the budget.
- Research and report to the FG if any other incinerator has been shut-down and restarted.
- Copies of Mr. Hudson's slides
- DOE's response to the CAB CIF motion by 8/15/00
- Comparisons of costs of operating versus costs of shutting down and for the possibility of running CIF while the team is conducting the studies.
- An early review of the costs and technology of a new non-thermal facility

The group tentatively laid out the following meeting agenda items:

August	September
Costs	Thermal destruction
Cost of shut-down	Non-thermal destruction
Cost of maintenance	Solidify solvent for disposal
Cost of start-up	Optimization
Order of Magnitude estimates	Information on RFI
Annual Operating costs	Alternative treatments for PUREX
Ways to short circuit costs	
Regulator review on licensing mobile incinerator	
Data on Privatization	
Permit Clarification	

August 23, 2000, was tentatively set as the next meeting date. Wade Waters adjourned the meeting at 7:30 p.m.

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