



## **SRS Citizens Advisory Board**

### **Salt Processing Focus Group**

#### **Meeting Summary**

April 11, 2000  
Aiken Federal Building  
Aiken, SC

---

The Salt Processing Focus Group met on Tuesday April 11, 2000, at 5:00 P.M. at the Federal Building in Aiken, SC. Attendance was as follows:

Ernie Chaput	Kelly Way
Mike French	John Reynolds
Lee Poe	Bill McDonell
Ken Rueter	Karen Patterson
Bob Hinds	Jim Fay
Bill Lawless	

Mike French welcomed everyone and started the meeting.

The Focus Group discussed the following areas:

#### **Direct Disposal in Grout**

John Reynolds discussed this alternative in depth. The high level part of the process is the same MST/alpha removal strike as seen with Ion Exchange and with Solvent Extraction. Basically, the MST treated solution is filtered and the solids are fed to DWPF for vitrification. The filtered salt solution, including the Cesium, would be processed in the new grout facility as "incidental waste" for disposal as Class C waste at Saltstone.

Mr. Reynolds continued by discussing the advantages and disadvantages of this alternative. Reynolds pointed out that there are programmatic, regulatory, public, and legal risks and uncertainties. This alternative also complicates the Can in a Canister mission since there would be no gamma radiation in the HLW to self protect the plutonium in the cans. Mr. Reynolds discussed the HLW definition in the CFR and in DOE Order 435.1. The Incidental Waste classification issue is still being discussed by NRC and DOE.

When asked if a study had been done on the economical feasibility of each alternative, Mr. Reynolds replied that it had not, but the department was heeding the CAB recommendation that said, in part, don't pick an alternative, such as direct disposal just because it is the cheapest alternative.

Bill McDonell questioned the effects of the saltstone on humans and the environment in 500 years. Mr. Rueter pointed out that these scenarios will be examined in the EIS in the intruder analysis.

A statement has been included in the EIS that states grout will not be considered, unless the other alternatives are found to be technically and economically un-useable. Poe questioned money spent on grout. Reynolds clarified that no further money is being spent, nor work is being done on grout. The base work and the pre-conceptual design were done. Westinghouse still stands by their earlier report that states the programmatic uncertainties surrounding grout precludes the ability for this to be an effective performer. Reynolds added that DOE agreed that this was not a Westinghouse responsibility, and DOE would pursue the grout issues.

Chaput expressed concern that grout isn't covered in the EIS. It was pointed out that there is a technical discussion of grout in the EIS. Rueter went on to explain that all three alternatives were processed and handled equivalently in draft.

Reynolds went on to say that work continues to bring solvent extraction up with the other three. Solvent Extraction is not included now in the draft EIS but will be added in the next six to nine months. Because of direction from HQ, the draft will be released without a preferred alternative.

There is a high degree of confidence that one or more of the cesium separation technologies currently being developed will prove to be technically and economically practical for SR wastes. Further efforts to gain acceptance of the direct disposal in Grout are not being pursued. Small tank and ion exchange are neck in neck technically. Solvent extraction is 3rd in technical maturity. Grout isn't in the race. There are no significant economic advantages in any alternative.

### **Small Tank TPB Precipitation**

Ken Rueter began with an overview of the layout of the facility and advantages and disadvantages. Mike French questioned the amount of benzene produced by this process and its effect on the environment. Benzene vaporizes and is lost through the vents and exhaust system. Other benzene is generated when the Sodium TPB is decomposed, this is then sent to CIF. There are two kinds released to the atmosphere. One kind goes to the stack (45 tons a year) and the other material goes to CIF. Space exists for addition of catalytic conversion. There is no technological risk. \$20M was contributed to study the programmatic risks, even though the facility is well within permit limits. This issue will be covered in the EIS.

Lawless suggested a Q&A on the World Wide Web with animation models to enhance understanding. Mr. Rueter talked about the material available on the Web and the update of information currently taking place. (See attachment)

Rueter continued with the layout of the facility. In this technology, TPB is the optimum for filtering out MST and sludge, it has produced the best flux rate of all tested, and it acts as a great filter aid. It was pointed out that TPB could not be a filter aid in the other three alternatives. After several questions, Rueter clarified that the other technologies leave more residual behind, crossflow is the filter technology of choice, and SRS has done many tests on filter configurations.

The new facility will be in "J-Area" directly south of DWPF. The site is laid out already for the facility, and SRS has been through the initial site permitting process. Rueter went on to compare the dimension of this facility to DWPF as he has done with the other alternatives.

Plans for CIF were questioned. The plans for CIF are for it to be shut down for up to five years. CIF has no cost-driving factor and won't weigh in the technology decision. SRS has priced a stand-alone incineration unit at \$1M. There is no impact one way or another in the cost analysis impact.

Rueter continued with the slides. He compared the facility with the other technologies.

Lawless questioned the risk uncertainties laid out in the EIS. There are none, for this is not required in the EIS, but it was included in the decision process. The engineering team has narrowed the risks from 500 to 8. Slide 8 outlined Open High Risks, mainly catalyst and foaming. The Academy of Science asked many questions about these. They gave SRS feedback on the presentation of R&D plans. Their report is due to the review team in the next week (April 24th) and due out to the public in May. Lawless suggested that the academy hold a public meeting to issue their report and answer any question the public may have. Lawless will correspond with the academy.

### **Current Status, Decision and Path Forward**

John Reynolds took a few moments to give an update. Headquarters has responded and issued an Action Plan and Notification process. Through the Action Plan, a Technical Working Group has been formed. They are leading the technology development and working on the decision path. The management of the R&D is led by Harry Harmon, contractor to Tanks Focus Area (TFA). Harmon will conduct the Plans of the Week and manage the Technology Development through the R&D phases. The R&D decisions and Path forward will be through Harmon. Harmon reports to TFA technical manager. The WSRC role will be to lead the conceptual design. The NEPA Branch has not changed. The design Authority Branch has not changed, and the Pre-Conceptual Engineering Design and Application of technology has not changed. Harmon's branch consists of the technology development and selection. The decision will go to EM-1 for approval. The decision-making process lies with Headquarters. Logistical support will come from HQ. DOE-SR is still the customer. WSRC support the Technology Development just as they support NEPA. Harmon is assuming ownership of an R&D Program that is already in place. The new plan involves HQ more and earlier than before.

The TFA, Technology Working Group, and Harmon targeted April as the down select. EM 40 approval is required. The dEIS will be issued in 1/01 without a preferred alternative.

June 2001 is targeted for recommendation for down select and EM approval of Alternate selection. A technology and a back up will probably be given. The contract will be awarded after the technology decision is made. When the alternative is named, the TFA will probably phase out and the Technical Advisory Team will phase-in.

Mike French adjourned the meeting at 8:45.

The following actions arose at the meeting:

1. Schedule a meeting to discuss risk uncertainties
2. Provide Focus Group with NAS e-mail and phone numbers. (Complete 4/17/00)
3. Put WEB addresses in minutes. (Mailed to FG 4/17/00: in minutes, 4/19/00)
4. Determine FG 2000 Path Forward. Possible topics are as follows:
  - o Uncertainties
  - o Tank Farm Space Management
  - o Evaporator Impacts
  - o Roadmaps
  - o Alpha removal

***For copies of meeting handouts call 1-800-249-8155.***