



## **SRS Citizens Advisory Board**

### **Salt Processing Focus Group**

#### **Meeting Summary**

January 8, 2001

Aiken Federal Building

Aiken, SC

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The Salt Processing Focus Group met on Monday, January 8, 2001, at 5:00 p.m. at the Aiken Federal Building in Aiken, SC. Attendance was as follows:

Bill McDonell

John Reynolds, DOE

Mike French

Kelly Dean, WSRC

Wade Waters

Rick McLeod

Lee Poe

Bill Lawless

#### **Waste Removal and Tank Cleaning:**

Mr. Poe briefed the committee on the presentation that Larry Ling, Department of Energy (DOE) had given him the previous week on the High Level Waste (HLW) Tank Closure Environmental Impact Statement (EIS). Mr. Poe reminded the group that the Focus Group (FG) has been tasked with reviewing and commenting on the EIS. He stated that the EIS begins after the waste has already been removed from the tank, and that waste removal (WR) is not a part of this EIS. Mr. Poe pointed out that the WR program was ongoing with many small projects underway. He stated that the residual waste that remains after water washing is addressed in the EIS. Mr. Poe continued by explaining the removal process for salt and sludge. He detailed the slurring, the dissolving, and the transferring of the waste.

Next he discussed the heels left in the tanks after water washing and SRS's ability to determine the curies of activity contained in these heels. Savannah River Site (SRS) has identified a process to determine curies per gallon and concludes that there are 1-10 curies per gallon per tank. SRS identified their strategy as the following:

1. Waste removal must have been completed as far as technically and economically feasible.
2. The remaining waste must be no higher than Class C waste.
3. Radionuclide content of all tanks must not leach and exceed the 4 mrem/yr at the seep line before entering the creek.
4. The tank must be proportioned to total limit compared to the rest of the tank farm.

When asked if all the tanks were going to be cleaned to the same level. Mr. Poe stated that he understood if two washes got the tank to the point of acceptability, then no more washing would be required. However, if two washes don't do the job, then of course, more would be required.

When asked about the tank closure schedule, Mr. Reynolds answered that according to the tank closure schedule, twenty-four tanks are to be closed by 2022. The group discussed the "Class C" classification of waste. This classification of waste is a Nuclear Regulatory Commission (NRC) basis for disposing of solid low level waste. This classification is based on the inadvertent intruder scenario in the EIS. Class C limits provide more protection for inadvertent intrusion than classes A and B. NRC says you can't dispose of anything above that in shallow land disposal. Class C disposal allows for disposal of a higher radionuclide content.

The group discussed the 4 mrem value used in the EIS. They determined that the state regulators have bought into a mixing zone for waste tanks. The 4 mrem/yr. is a calculated average. If someone drank that water for one year at the seep line, and got 4 mrem a year of contamination, then he would have exceed the limits applied in the EIS, but still would encounter no ill effect.

The group continued. Assuming all high heat waste tanks are emptied to 100 gallons of waste and low heat waste tanks contain 1,000 gallons waste, then the seepage concentration maximum would be 1.9 mrem/yr. The group determined that the EIS shows the same data for H-area.

Mr. Poe continued with other methods of washing, such as the use of oxalic acid. The Safety Analysis Report prohibits the use of oxalic acid at this time. He pointed out that SRS used oxalic acid to wash Tank 16. After bulk waste removal, spray washing, oxalic acid washing, and rinsing; .02% of solids remained in Tank 16.

Mr. Reynolds clarified for the group. The NRC has determined that after two washes, a check is performed. If two washes weren't adequate, then more must be done. If the two washes meet all the criteria, then no more are required. The requirement is read as a minimum of two washes. Some of the tanks have been water washed up to seven times. Mr. Reynolds also stated that a determination must be made to see if the oxalic acid wash is worth the money for the result.

Mr. Poe continued that the key issue for the FG to remember is that Mr. Waters has asked this group to be the reviewers for the EIS and to comment. He then reviewed the original schedule to see if the timeframe is still achievable.

1/30/01 Focus Group comments on *TC EIS*

2/10/01 Rick McLeod incorporates comments into a letter

2/20/01 WM Committee approves letter (FG goes to WM Committee)

2/27/01 WM letter with comments is sent to DOE

Mr. Poe continued. The CAB Chair sent a letter requesting an extension to the public comment period on November 24. The extension wasn't granted because DOE had already given a 45-day extension because of Christmas holidays, but DOE did state that they would accept the FG's comments and incorporate them into the EIS. Mr. Poe urged the group to submit individual comments, and the FG would also work on a group letter. Mr. Lawless voiced his concern that commenting late on the EIS may delay the tank closure EIS process. The group decided to attend the EIS scoping meetings and ask questions.

Discussion ensued about the group's participation in the EIS scoping meetings and comment period.

The group drafted several questions and points they would like to see covered in the scoping meetings and/ or the final EIS, for example, a reasonable waste inventory and the 4 mrem drinking standard. The advantages and disadvantages of the group's submitting a formal report were also considered, but it was determined that there wasn't enough time to submit a report.

#### **Salt EIS:**

Mr. Reynolds, DOE, gave an update to the Salt EIS schedule. He stated that the EIS is behind schedule. EH and General Counsel (GC) have sent 2/3 of their comments. The draft was originally due in March, but this date may slip a little. This EIS is #1 priority at HQ at this time. They are looking at a preliminary draft without a letter. DOE-SR hopes to get comments back soon so that we can incorporate them. However, the Salt EIS is not coupled to the salt replacement decision. SRS can make the down selection for the final EIS. The Record of Decision (ROD) is required at detail design, not conceptual design. The conceptual design would require 6-9 months after down selection, putting the date somewhere in early 2002.

Westinghouse has been tasked with evaluating pilot plants for three technologies. They are to develop a pre-conceptual design for pilot plants for any of the three technologies. April is the time frame for preparation of conceptual design of Late Wash as a pilot plant. The down select scheduled for June is still on track. The real waste tests are scheduled for between now and March.

December was the original date for the draft Request for Proposals (RFP). A Research and Development (R&D) update for vendors (Vendor Forum) is scheduled for later this month. If we couple the EIS with the ROD, there would be a slippage, but that is not required.

#### **Annulus Cleaning Recommendation:**

Mike French discussed the annulus cleaning recommendation with the group. Mr. French pointed out that Tank 14, scheduled to be closed in 2010, is the first tank to be cleaned and closed with an annulus. Tank 14 has the most leak points, with approximately 90% of the annulus having been examined. Tank 11 is the next to be closed with fewer leaks and 20-25% of the annulus visible. If the system plan closure schedule is followed, then the annulus must be cleaned by 2007. Tank 14 has more waste, so its annulus needs to be cleaned around the same time.

Mr. French then read the recommendation to the group. After much discussion, the group agreed on the following

The CAB is concerned about the low priority SRS appears to place on annulus cleaning and recommends the following:

1. SRS develop, test and have a method for annuli cleaning ready for use no later than 2007.
2. SRS develop a HLW tank annuls-cleaning plan with a schedule for demonstration of elements of the program to meet the above date and present the plan to the Salt Focus Group before the end of July 2001.
3. SRS provide periodic HLW tank annulus cleaning program updates to the Salt FG containing applicable technologies and funding status.

This recommendation is ready to be presented to the WM Committee for approval at the January 22 CAB meeting in Hilton Head.

#### **Path Forward:**

Mr. French encouraged members to list possible topics for discussion at the February meeting.

Mr. Poe asked if there were any further discussion. There being none, he dismissed the meeting at 8:45 p.m.

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