Savannah River Site Citizens Advisory Board

Recommendation 174
Low Curie Salt Waste Stream Characterization

Background
The tailored treatment approach proposed for Salt Processing will require the existing Saltstone facility to be able to accommodate up to 0.4 curie/gallon of radioactive waste. Under the old In-Tank Precipitation (ITP) process, the cesium and actinides were removed, sent to DWPF, mixed into glass and the resulting wastewater (0.005 curie/gallon) was sent to Saltstone. This was 95% of the waste volume but only 0.1% of the radionuclides. Under the tailored treatment approach, 96% of the waste volume still goes to Saltstone but the radionuclide portion increases to 4%. Furthermore, the new approach could mean that 20 million curies would remain on site as opposed to the planned 70 thousand curies when ITP was being used (Ref. 1).

The issue of increased levels of radioactivity disposal was a main topic of discussion during the in-depth Waste Management (WM) Committee meetings focused on the Salt Disposition topic. Therefore, how much radioactive waste leaves the Savannah River Site (SRS) and how much is safe to remain is open for debate. Before SCDHEC can permit the Saltstone facility to receive the proposed 0.4 curie/gallon waste stream, public policy needs to be established and input and guidance received from the public and all authoritative parties [SC Nuclear Advisory Council, SC Legislature, and Governor's office] (Ref. 2 and Ref. 3). Currently, SCDHEC has suspended all review activity of the low curie salt waste stream characterization, until the high-level waste classification issues have been addressed. However, SCDHEC has expressed a desire to work with DOE to develop a high-level waste classification strategy (Ref 4).

Comment
As voiced repeatedly in numerous motions (Ref 5, 6,7,8,9,10), the primary concern of the SRS Citizens Advisory Board (CAB) is to accelerate the HLW Tank closure schedule and to have a salt processing facility operational by 2010, which is only six and a half years away. A key objective in accelerating the HLW closure process is the ability to process some low curie salt in the Saltstone facility.

Recommendation
The SRS Citizens Advisory Board (CAB) is interested in accelerating the public policy debate to resolve the low curie waste characterization issue and therefore recommends the following:

1. SCDHEC reconsider the suspension of the review activities associated with low curie salt waste characterization.
2. SRS and SCDHEC work together with public input through the public policy process to determine the quantity of low curie salt that can be safely stored in South Carolina.
3. SRS and SCDHEC work together to plan and conduct a public education meeting for interested stakeholders to begin the public policy process. A timeline for holding the public education meeting is requested by November 17, 2003.

References

1. Preparing Saltstone for Low Curie Waste, presentation to the WM Committee by Dennis Thompson, June 24, 2003.
2. WM Committee Tailored Salt Processing Program Forum meeting notes, May 6, 2003.
3. WM Committee Tailored Salt Processing Program Forum meeting notes, May 22, 2003.
4. Mr. Roger Gill, Manager Facility Engineering Section, South Carolina Department of Health and Environmental Control, letter to Mr. Keith Liner, Westinghouse Savannah

River Company, August 22, 2003.

5. Citizens Advisory Board Recommendation No. 69 (adopted November 17, 1998), "Selection of HLW Salt Disposition Alternatives."
6. Citizens Advisory Board Recommendation No. 81 (adopted March 23, 1999), "High Level Waste Salt Disposition Alternatives to the In-tank Precipitation Process Supplemental Environmental Impact Statement."
7. Citizens Advisory Board Recommendation No. 112 (adopted January 25, 2000), "Selection of HLW Salt Processing Alternative."
8. Citizens Advisory Board Recommendation No. 137 (adopted April 25, 2001), "Salt Processing Alternatives Draft Supplemental Environmental Impact Statement."
9. Citizens Advisory Board Recommendation No. 147 (adopted January 15, 2002), "Parallel salt Disposition Strategy."
10. Citizens Advisory Board Recommendation No. 159 (adopted March 25, 2003), "Low-Curie Salt to Saltstone."

Agency Responses

South Carolina Department of Health and Environmental Control (PDF)