



Savannah River Site Citizens Advisory Board

Recommendation 191 Modified Salt Waste Disposition Strategy

Background

The initial tailored treatment approach proposed for Salt Processing resulted in 27 million gallons of low curie salt being directly processed in Saltstone. Another 28 million gallons of low curie salt was to be processed through an actinide removal and then processed in Saltstone. This left 29 million gallons of high curie salt waste to be processed (3 million gallons per year) through the Salt Waste Processing Facility (SWPF) for actinide/strontium removal and cesium removal. A total of 84 million gallons of salt waste would be processed. This strategy met the PMP goal of completion of waste removal from the Savannah River Site (SRS) tank farms by 2019. This strategy could have resulted in approximately 20 million curies of radioactivity disposed of in the Saltstone vaults as a low activity waste. A new modified salt waste disposition strategy is being considered and incorporates comments received from stakeholders including the South Carolina Department of Health and Environmental Control (SCDHEC), the South Carolina Governor's Nuclear Advisory Council and the SRS Citizens Advisory Board (CAB). The SRS CAB provided specific recommendations (Ref. 1). Under the modified strategy, the SWPF total capacity is increased to 74 million gallons or greater than 5 million gallons per year throughput with waste feed staged in advance of facility start-up. There will be a near-term deployment for cesium and actinide treatment for limited low curie salt disposal (10 million gallons). This revised strategy would result in less than 5 million curies of radioactivity being disposed of in the Saltstone vaults as a low activity waste. This strategy still processes a total of 84 million gallons of waste and provides SRS the opportunity to meet the 2019 end state goals. To meet these goals, implementation has to start soon and is dependent upon satisfactory resolution of the Waste Incidental to Reprocessing (WIR) legal issues and the ability to recover the FY 2005 budget holdback (Ref. 2).

Comment

SRS's HLW program for FY 05 includes \$188.6 million in funds that are included in the President's budget as a "HLW Proposal," funding of which is tied to resolution of the WIR lawsuit uncertainties. A large portion of the funds (approximately 80%) is tied to the necessary workforce to accomplish these activities (Ref. 3). If the FY 05 funding is not restored, not only will the salt program and SWPF project need to be re-evaluated, but the loss of highly-skilled SRS employees is highly probable (estimates have ranged between 1,000 and 2,000 employees). DOE-HQ made a business decision to budget the necessary funds to allow Hanford to continue with construction of Hanford's HLW projects, although the Hanford HLW program is also affected by the outcome of the WIR lawsuit. The SRS Citizens Advisory Board (CAB) believes that several of the scheduled modified salt waste disposition activities can continue pending resolution of the WIR lawsuit. The main impediment to moving ahead is that there is no funding in the FY 05 budget to continue design and construction of the Salt Waste Processing Facility (SWPF). The following additional non-WIR disputed activities also could continue: construct and modify building 512-S and 241-96-H for use as additional Actinide Removal Process capacity; construct a Caustic Side Solvent Extraction (CSSX) pilot facility to demonstrate the cesium removal process; and remove and pretreat the salt waste from HLW tanks. Funding could also be used to modify the Saltstone facility and vaults to receive a 0.5 curie/gallon waste stream.

Recommendation

The SRS Citizens Advisory Board (CAB) is deeply concerned about potential delays in implementing the modified salt waste disposition strategy; their long term effect on completion of HLW cleanup by 2019; and their short term effect on availability of the skilled work force

specific to these projects. Therefore, SRS CAB recommends the following:

1. SRS identify the impacts on costs and schedules of delaying SWPF design activities and present the findings to the SRS CAB by July 26, 2004.
2. SRS implement as much of the modified salt waste disposition strategy as the FY 04 budget will allow.
3. DOE-HQ provide funds necessary for SRS in order to begin to implement the modified salt waste disposition strategy, such as the design and construction-related activities identified in the comment section above.

References

1. Citizens Advisory Board Recommendation No. 172 (adopted September 23, 2003), "Salt Processing Design Revision."
2. Salt Waste Processing Update, presentation to the WM Committee by W. D. Clark, April 27, 2004.
3. Citizens Advisory Board Recommendation No. 186 (adopted March 24, 2004), "High Level Waste Proposal."

Agency Responses

[Department of Energy-SR](#)