

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 1, 2002

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
J. J. McConnell, Deputy Technical Director  
**FROM:** R. T. Davis/ T. D. Burns  
**SUBJECT:** SRS Report for Week Ending November 1, 2002

**Low-Curie Salt:** Processing of Tank 50 material (site rep weekly 9/13/02) was recently suspended due to the identification of unexpected solids in the tank. Subsequent characterization of the solids indicated a small concentration of organic material (~0.1 wt% TPB). Though the presence of this organic material does not compromise the time-to-LFL limits in the safety basis for Tank 50, additional analyses are on-going to determine if there are flammability issues associated with dry-out of the solids. Additionally, WSRC is evaluating whether the benefits of removing the solids prior to placing Tank 50 into high-level waste service outweigh the near-term cost and schedule penalties. De-inventory of the remaining Tank 50 solution requires less than a week of processing through the Saltstone Production Facility; however, evolutions to remove the solid material would delay de-inventory by at least one month. Returning Tank 50 to high-level waste service is a pre-requisite for meeting the Recommendation 2001-01 Implementation Plan Commitment 2.9 to transfer the first batch of low-curie salt to the Saltstone Production Facility by December 2002.

**Tank 37 Activities:** On Thursday, WSRC began transferring the first of five batches of dissolved salt-cake from Tank 37 to Tank 35. Salt level measurements indicate that the addition of the first batch of inhibited water resulted in a decrease of approximately 11 inches of salt-cake. The observed decrease in salt level is consistent with analytic predictions indicating favorable salt dissolution efficiency (site rep weekly 10/25/02).

**Nuclear Material Processing Activities:** This week, DOE-SR issued direction to WSRC concerning nuclear material processing at SRS. This letter is consistent with program objectives provided by the Assistant Secretary of Environmental Management (EM) earlier this month and directs WSRC to complete processing activities by fiscal year 2006. In order to achieve this objective, WSRC will maximize disposition of material to waste disposal sites and to the high level waste system. Additionally, material previously planned to be processed at H-Canyon will be packaged to the DOE-STD-3013 and stored. Disposition plans for these and other materials continue to be evaluated by an EM integrated project team. WSRC is expected to present a plan to achieve these objectives by December 16, 2002.

**FB-Line Packaging and Stabilization:** During testing of the outer can welder, SRTC observed a high rate of weld failures. Additional testing appears to indicate that this problem was caused by the differential pressure across the weld. This differential pressure occurs during installation of the interference fit can lid. The setup procedure has been revised to reduce the differential pressure and several successful welds have been performed. SRTC will now perform a 25 can acceptance test prior to shipment of the welder to FB-Line. Construction activities to support outer can welder installation continue on schedule.