DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 3, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending March 3, 2006

DNFSB Activity: Messrs. H. Massie, R. Robinson, and B. Yeniscavich were on site for a review of interim salt processing activities and high-level waste tank inspection data.

H-Canyon: When operators tried to initiate a transfer of low-enriched uranium solution into a canister, there was no flow because the wrong automatic 3-way valve changed position. A closed manual valve prevented an inadvertent transfer to the wrong canister. Troubleshooting to date indicates that this was likely due to a communications problem with a linking device rather than a recent Distributed Control System software upgrade.

Deactivation: At a former Waste Truck Unloading House in F Area, workers were attempting to remove lead shot (used for shielding) contaminated with transuranics from a vertical pipe using a glovebag. Somehow the shot draining from a 2" dia. hole in the pipe clumped together and twice plugged the plastic sleeving and tube that were being used to transfer the shot into a waste drum. Attempts to unplug the shot or drain it through other ports were not successful. Due to the weight of accumulated shot, the glovebag started to tear at a seam. Workers were able to cut a hole in the glovebag and drain the accumulated shot before the glovebag ripped open. The tear resulted in a release that caused airborne radioactivity to exceed the Radiation Work Permit suspension limit by a factor of 11 and resulted in a skin contamination to a worker despite two pairs of protective clothing. Five workers started a special bioassay program.

HB-Line: The Site Rep observed a review of the causes common to radiological events over a 5-month period. The Site Rep believes the analysis could be improved if clearly defined cause categories were used consistently. Furthermore, reviewing the frequency and common causes of new events after corrective actions were implemented could help determine the effectiveness of those actions. A walkdown also identified some potential chemical storage issues in a lab glovebox and the use of cellulosic materials around 8 M nitric acid.

Tank Farms: During the last two weeks, there have been three lock out events at F and H tank farms. No work was actually performed on energized systems, but in one case the energized system was missed by the safe energy check and only found during the absence of voltage check.

Saltstone Production Facility: Because cyclic pressures during grout runs were degrading a rupture disc and causing it to activate prematurely, the contractor is using a code case to justify replacing the disc with additional pressure indicators and interlocks. If the new configuration works satisfactorily, the readiness assessment for resuming saltstone should start March 13.

Salt Waste Processing Facility (SWPF): This week the Site Reps meet with Parsons to discuss recent changes to the SWPF design and the timing of future DNFSB staff design reviews.