

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 6, 2006

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: J. S. Contardi/M.T. Sautman, SRS Site Representatives
SUBJECT: SRS Report for Week Ending January 6, 2006

HB-Line: This week, a process air purge flow alarm was received in the phase II (neptunium stabilization) control room. The affected system provides purge air for a feed tank to ion exchange columns and is credited for preventing hydrogen deflagrations. The tank was placed in a safe configuration and the facility entered into the applicable limiting condition for operations (LCO). Trouble shooting of the system determined that the line was plugged. Maintenance personnel cleared the line and will purge the system prior to exiting the LCO.

To allow more deliberate operations in phase H, the contractor placed phase I (dissolution operations) in standby in early November 2005 (Site Rep. Weekly 11/10/05). This week the contractor restarted phase I operations and resumed stabilization of FB-Line sweepings. The FB-Line sweepings were generated last year prior to commencing deactivation of the facility. Due to the various campaigns throughout the history of FB-Line and the lack of full characterization of the sweepings, developing storage and surveillance methodologies could prove difficult. As a result, restart of phase I is vital to the timely disposition of these materials.

Tank Farms: The Site Rep observed workers remove the contaminated submersible mixer pump (SMP) from tank 5 and transport it to tank 6. Planning was essential since there was nowhere to lay down the equipment on the ground if problems were encountered due to congestion in F Tank Farm. The workers conducted the job smoothly. The contractor is considering putting the two SMP's back in tank 5 after mixing is finished in tank 6 and possibly adding a third SMP to remove sludge that was left behind after the first two batches. The Site Rep reviewed videos showing the area congested with cooling coils where the residual sludge mounds are located.

247-F: The Site Rep walked down this former nuclear fuels facility, which is currently being demolished. Worker protection controls and air monitoring requirements were discussed with the operations and radiation protection managers. Most of the contamination has been fixed or removed by scabbling, but there is a section of the building where contamination levels are still approximately $2.5E+06$ dpm/100 cm². The contractor hopes to remove this section mostly intact. Because the shear was damaged while trying to cut thick I-beams, these items will be shipped directly to the burial grounds without size reduction.

Salt Processing Technology Development: The Department of Energy Savannah River Operations Office recently released the fiscal year 2006 technology development program plan for salt waste processing. \$16 million has been allocated for this program which is a slight decrease from the previous year. The plan focuses on both near term and long term waste processing technologies (e.g., deliquification, dissolution, and adjustment, the actinide removal process, and the Salt Waste Processing Facility). Of particular interest is the identified need for future technology development to recover Tank 48, which would include both the planned disposal in saltstone as well as in-tank and out of tank organic destruction.