

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 8, 2002

MEMORANDUM FOR: J. Kent Fortenberry, Technical Director
FROM: R. T. Davis/ T. D. Burns
SUBJECT: SRS Report for Week Ending March 8, 2002

Defense Nuclear Facilities Safety Board Chairman J.T. Conway and Technical Staff Director J.K. Fortenberry attended a Citizens for Nuclear Technology Awareness breakfast at Newberry Hall in Aiken, SC. The Chairman provided the keynote address and discussed the challenges and accomplishments of the Board since its inception.

3H Evaporator Spill: On Monday, the 3H evaporator was shutdown to due to a clogged gravity drain line. Efforts to clear the obstruction by flushing the lines with water proved unsuccessful and resulted in a leak in the nozzle connection between the evaporator pot and the lift line jumper. A failed specific gravity meter in the cell sump led operators to believe there was a flush water leak and not a breach in a waste line. Subsequent attempts to remove waste from the pot via the alternate vent line resulted in additional waste leaks and the recognition that flush water was not the problem. Remote camera inspections verified that approximately 490 gallons of waste had been spilled to the cell floor.

The situation has been determined to be within the safety envelope of the Authorization Basis. As of Friday, the cell floor has been flushed eight times and approximately 80% of the leaked waste has been sent via the cell sump to Tank 32 (the 3H feed tank). The current recovery plan is to de-inventory the evaporator pot using the leaking jumper connection. The sump will be continuously jetted to Tank 32 during this evolution. Once the pot is emptied, the cell will be flushed and decontaminated and the leaking jumper will be replaced. Recovery efforts are expected to begin over the weekend.

Plutonium Stabilization and Packaging: Last Friday, WSRC submitted the baseline cost and schedule package for the FB-Line Stabilization and Packaging Project to DOE-SR for approval. The estimate identifies a Total Project Cost of approximately \$25 Million at an 80% confidence level. The startup schedule is April 2003 for the outer can welder and November 2003 for the oxide furnace. This startup schedule is consistent with the proposed Recommendation 94-1/2000-1 Implementation Milestones and will support completion of DOE-STD-3013 packaging of all SRS plutonium metal and oxide by December 2005. DOE-SR is currently reviewing the package. In addition, an external independent review team will evaluate the project baseline. WSRC has requested approval of the package by April 26, 2002 to support construction activities.

The project design is approximately 40% complete. Consistent with the previous WSRC recommendation (site rep weeklies 2/1/02, 2/8/02), the estimate includes use of the Tungsten Inert Gas weld system with 100% digital radiography supplemented by standard radiography. In addition, the baseline includes additional FB-Line storage racks, a spare furnace, and moisture measurement equipment (TGA/MS).