

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 26, 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 April 26, 2002

Saltstone Restart: The first waste transfer from Tank 50 (20,000 gallons of Effluent Treatment Facility bottoms) was sent to the Saltstone Processing Facility (SPF) on Monday. Although several minor equipment issues resulted in delays, the entire 20,000 gallon inventory was successfully processed to grout by Friday. The next waste batch is scheduled for transfer from Tank 50 to the SPF on Monday. Transition from batch processing to semi-continuous operation is anticipated thereafter.

3H Evaporator Status: Based on mock-up test results and component examinations, WSRC engineering has identified mechanical gasket degradation due to thermal expansion and contraction of the mating flanges as the likely cause of the previous leakage in the lift-line jumper connection (site rep weekly 4/5/02). The near-term path forward is to operate the 3H evaporator subject to the requirement that the lift-line jumper gasket be replaced every time the evaporator undergoes a thermal expansion/contraction cycle. Camera monitoring of the lift-line jumper connection will also continue. Re-design of the jumper will be pursued in parallel as the permanent fix but may take upwards of three months to complete.

The 3H evaporator was restarted over the weekend consistent with the near-term path forward. As of Friday, the evaporator remains in operation and daily camera inspections have shown no leakage.

Plutonium Packaging and Stabilization: This week, DOE-SR approved the project baseline (CD-2) for the FB-Line Plutonium Packaging and Stabilization (P&S) project (site rep weekly 3/8/02). The project baseline has been established at a total project cost of \$25.5M. The baseline was reviewed by DOE-SR and an external independent review team (Jupiter Corp). Issues associated with these reviews have been resolved. Because several of the construction activities are independent, WSRC has requested phased approval of construction activities. This week, DOE-SR granted construction approval (CD-3c) for Demolition and Removal (D&R) activities required for the outer can weld room in the 3rd level of FB-Line and fabrication of a storage rack and digital radiography equipment. The baseline schedule is to startup outer can weld and furnace activities in April 2003 and October 2003, respectively. This schedule should support packaging of all SRS plutonium metal and oxide to DOE-STD-3013 by December 2005.

Emergency Response Exercise: SRS conducted an emergency response exercise this week that simulated a seismic event resulting in a tube bundle break in the 2F evaporator and subsequent offsite airborne release. The drill also simulated a liquid release associated with an inter-area transfer and an injured/contaminated worker. As a part of this drill, the Federal Radiological Monitoring and Assessment Center assets were activated to assess offsite contamination. Lessons learned from the practice drill performed earlier this month appear to have significantly improved performance during this exercise.