

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 13, 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 December 13, 2002

Americium/Curium: The second integrated cold run commenced on Monday but was temporarily shut down twice due to HLW equipment issues. These delays occurred while the transfer path was being primed with water and prior to beginning the simulated transfer of material from F-Canyon. The first shut-down was due to a stuck stand-by switch that caused the F-Pump Tank-1 re-circulation pump not to start as expected. The second shut-down was caused by the failure of a variable frequency drive controller for the H-Pump Tank-7 transfer pump. Upon completing the necessary equipment repairs, the transfer was re-started on Tuesday and executed without interruption. The opportunity to identify and correct these residual equipment issues underscores the benefit of performing this additional cold run.

Approximately 11,500 gallons of simulant was transferred from F-Canyon tanks 13.1 and 13.3 to Tank 51 in H-Area during the cold run. Also, a flow-rate of approximately 36 gpm was achieved through the F-Canyon waste header, which is nearly double the 20 gpm requirement (site rep weekly 11/15/02). Though no pluggage was observed, the contingency procedure for flushing the waste header was exercised successfully at the end of the transfer. Neutralization of the first batch of americium/curium solution is scheduled to commence next week and the actual transfer is expected to take place in mid-January.

DWPF Outage: On Wednesday, WSRC removed the failed melter from the Melt Cell and transported it to the Railroad Well where it was successfully placed in the Melter Storage Box. This evolution was the largest operational lift (~91 ton melter load) undertaken to date with the Main Process Cell crane and was executed without incident. Weather permitting, the Melter Storage Box will be placed in the below-grade Failed Equipment Storage Vault early next week. Overall, the outage is currently tracking 9 days ahead of schedule with installation of the replacement melter expected to commence in early-January.

HEU Blend Down: The contractor Readiness Assessment (RA) for Highly Enriched Uranium (HEU) blending operations is complete. Nine pre-start findings were identified. WSRC is working through resolution and closure of these findings. In addition, WSRC is working with DOE-SR to resolve the basis for Nuclear Incident Monitor (NIM) coverage for HA-Line. WSRC plans to begin blending operations in January. This week, the first batch of blend grade HEU was transferred to the B3-1 tank in H-Outside Facilities. Samples taken prior to the transfer indicate that alpha contamination is within the purity specifications (site rep weekly 11/29/02).

Citizens Advisory Board: A site representative met with the Citizens Advisory Board (CAB) nuclear materials committee to discuss the DNFSB letter dated November 8, 2002, which addresses the F-Canyon facility.