

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 4, 2003

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 4, 2003

Plutonium Packaging and Stabilization: On Tuesday, WSRC packaged the first SRS can of plutonium metal in accordance with DOE-STD-3013. Packaging plutonium metal and oxide per the DOE standard reduces the risk of storing this material and is a Recommendation 94-1/2000-1 commitment. This activity will also allow WSRC to transfer plutonium materials to 235-F and K-Area Material Storage. Deinventory of the FB-Line vaults as a part of the overall F-Area shutdown is a DOE priority.

The FB-Line Packaging and Stabilization project will provide the capability to achieve DOE-STD-3013 packaging for SRS plutonium metal and oxide. The first part of the project provides the capability to weld the outer can. The critical decision and authorization agreement to begin this activity were signed early this week. Welding started on Tuesday with 4 cans completed to date. All cans passed visual and digital radiography testing. WSRC hopes to achieve approximately 8 cans per day.

The second part of the project will provide the capability to stabilize and package plutonium oxide. This includes furnaces to high fire the oxide and modification to the bagless transfer system to accept the taller oxide cans. WSRC continues facility modifications and is currently on schedule to begin this activity this Fall. The Recommendation 94-1/2000-1 commitment for completion of both metal and oxide packaging is December 2005. Because of the high priority DOE has placed on F-Area shutdown, WSRC will likely achieve this commitment well ahead of schedule.

H-Canyon: Last Sunday, WSRC transferred the 30% tributylphosphate (TBP) from the H-Canyon facility to an H-Area outside facilities tank. One of the more significant postulated accidents inside the canyon involves the 30% TBP. Removal of this material eliminates the potential for this accident and helps resolve the Potential Inadequacy in the Safety Analysis (PISA) that was declared last week (site rep weekly 3/28/03). Other PISA compensatory measures remain in place for scenarios that involve 7.5% TBP, which continues to be stored and used in the facility.

DWPF Restart: The DWPF outage ended last weekend with the restart of canister pouring operations (site rep weekly, 3/14/03). The first post-outage canister was filled on Sunday, and a total of four canisters have been filled this week. An improved frit blend (Frit 320), which is expected to increase the waste loading capacity of each canister by 25%, is now being employed. Outage activities were completed 19 days ahead of schedule.