

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 7, 2000

**TO:** K. Fortenberry, Technical Director

**FROM:** M. Sautman and S. Stokes, Hanford Site Representatives

**SUBJ:** Activity Report for the Week Ending April 7, 2000

A. Spent Nuclear Fuel Project Baseline Change Request (BCR). The Department of Energy (DOE)-Richland approved the sludge acceleration BCR and Fluor Hanford was authorized to proceed with the new strategy. This change will impact commitments in the current Recommendation 94-1 implementation plan. (1-C)

B. Integrated Water Treatment System (IWTS). IWTS testing was interrupted due to findings associated with the rupture disk failure. This failure was due to a pressure spike caused by improper valve positioning combined with rapid valve opening after starting the submersible pumps. The improper valve line-ups resulted from an inadequate engineering analysis following the addition of the rupture disk late in the system's construction. Though the rupture disk has been repaired and the IWTS successfully operated in manual mode, reprogramming of the primary logic controller (PLC) is ongoing to ensure that the system responds correctly in automatic mode. The project has incorporated this lesson learned into their lessons learned program. (1-C)

C. Plutonium Finishing Plant (PFP): PFP has radiographed 8 items with weight gains greater than 5 grams and 4 items that were suspected of having plutonium in contact with plastic. One item with a 41 gram weight gain was moved into a glovebox since oxide growth had filled up most of the space on the sides and top of the ingot. The Site Rep believes it would be prudent to further examine or transfer a second item where oxide is starting to fill up the void space on the sides and has left only a very thin void space above the ingot. Please note that both of these items are in four nested cans. A breach of the innermost can would not cause a contamination release, but would expose more oxygen to the metal and speed up oxidation. The other items with weight gains have little oxide growth and/or adequate void space present. Only 1 of the 4 suspect items was found to be in direct contact with plastic. (3-A)

D. High-Level Waste Tank Integrity. The DOE-Office of River Protection received a notice of intent to take formal enforcement action from the Washington State Department of Ecology (WDOE) regarding its tank integrity program (Tri-Party Agreement Milestone M-32). WDOE advised DOE-ORP that they had failed to meet Resource Conservation and Recovery Act (RCRA) interim status requirements for tank systems regarding the completeness of an integrity assessment submitted to WDOE on September 30, 1999. Specifically, WDOE cited discrepancies regarding DOE's failure to meet commitments outlined in their integrity assessment plan.

cc: Board members