

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 6, 2002

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending December 6, 2002

Plutonium Finishing Plant (PFP): PFP finished thermally stabilizing plutonium alloys and packaging them into 3013 cans. Repackaging of sand, slag, and crucible is also complete.(III-A)

Waste Treatment Plant (WTP): The Site Rep walked down the construction site and observed cold weather placements at both the High-Level Waste (HLW) facility and Pretreatment pit. Workers were observed implementing the corrective actions enacted after a truckload of concrete with too high of slump was inadvertently placed. Nondestructive examination of the cold joint is finished and about 400 dowel holes have been drilled so far. Because the cold joint has different levels, three placements will be used to minimize differential shrinkage. A 21-day wet cure is being considered for these placements.

The Office of River Protection rejected Bechtel National Inc.'s request to procure materials and components for use in the WTP facilities after identifying discrepancies between the procurement and the Preliminary Safety Analysis Report. For example, the cesium ion exchange feed coolers and other vessels were incorrectly specified as Quality Level (QL) 2 rather than QL-1. In addition, thousands of QL-1 jumper connectors were to be procured although closure of an unverified assumption regarding jumper seismic qualification had not been completed.

Emerging information indicates that an additional 10 feet of vertical height may be required to accommodate a second HLW melter, which would impact several of the structural analyses of interest to the Board.

A preliminary analysis of the Low Active Waste Pour Caves using revised glass thermal properties indicates that the predicted leaving air temperatures and average air temperatures exceeded basic design requirements. In the event of a loss of ventilation to the pour cave, the HVAC return air duct temperatures were predicted to be above the design limits at the time the HVAC system is restarted. Concrete temperatures were within limits in all cases though. (I-C)

Tank Farms: Although a common cause analysis of electrical safety events did not identify any overarching common causes, the review did identify the need to revise the energized electrical work and lockout/tagout processes, improve work planning, and develop a troubleshooting guide. Saltcake dissolution testing in tank U-107 also began. (I-C, III-A)

Fluor Hanford Contract Modification: One of the assumptions providing the technical and regulatory basis for the closure actions and dates is a change to the Recommendation 94-1 Implementation Plan milestone for completion of sludge removal from the K-Basins. (III-A)
cc: Board Members