DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 27, 2000

TO: K. Fortenberry, Technical Director
FROM: D. Grover, M. Sautman and S. Stokes, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending October 27, 2000

Plutonium Finishing Plant (PFP): Solution processing has been hampered because filtrate Pu concentrations continue to exceed discharge limits. Some batches have been recycled three times despite achieving acceptable pH values each time. Particle size may be the culprit since preliminary data showed that switching from a 1 to 0.2 micron filter reduced Pu concentrations. This would be a nonissue if PFP was able to transfer the filtrate solutions to tank farms rather than discharging to a drum, which has more stringent criteria. However, the first solution transfer to tank farms that was supposed to occur this week has been delayed a month. (3-A)

Spent Nuclear Fuel Project: The Department of Energy initiated the operational readiness review (ORR) for the K-West Basin, Canister Storage Building (CSB), and Cask Transportation System on 10/27/00. The primary finding to date is that the scope of the ORR will need to be modified to exclude gas sampling of sample Multi-Canister Overpacks in the CSB and the processing of scrap fuel in the fuel retrieval system. The contractor is not currently prepared to demonstrate readiness to perform these activities. Separate readiness reviews will needed to be performed prior to the initiation of these activities. The ORR is ongoing over the next week.

This week the project performed a backwash of the one of the three integrated water treatment system garnet filters after approximately one week of fuel processing. This was required due to differential pressure across the filter exceeding the allowable value. The backwash cycles water backward through this filter, through the particulate settling tanks, and then through the other two garnet filters. Following the backwash, the differential pressure across all three filters exceeded the allowable value. The project engineering department is evaluating the condition and working to resolve the issue. (3-A)

Tank Farms: Messrs. Stokes and Sautman met with tank farms personnel to discuss their planned response to Board tank integrity concerns. Six recent samples from AY-102 found OH concentrations between 0.0076 and 0.0091 M versus a lower limit of 0.01 M. Mr. Sautman observed push sampling at SY-102 as well as the start of saltwell pumping at SX-103 during graveyard shift. While removing the first push sample, a connection became unthreaded, which left the sample and most of the remote latching unit down in the tank. An enhanced work planning session was observed to see how a resolution to this problems was developed. (3-A)

224-T: After months of relatively little activity, Fluor Hanford is now developing entry and sampling plans to support characterization of the process cells in 2001. (3-B)

cc: Board Members