

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 2, 1999

**TO:** G. W. Cunningham, Technical Director

**FROM:** R. Arcaro, & D. G. Ogg, Hanford Site Representatives

**SUBJ:** Activity Report for the Week Ending April 2, 1999

A. Plutonium Finishing Plant (PFP): Minor mechanical failures in the two muffle furnaces used for thermal stabilization have limited the overall throughput of stabilizing plutonium oxides in recent weeks. The furnace repairs were completed this week and thermal stabilization has resumed. The downtime experienced by the furnaces well illustrates the need to have additional muffle furnaces (scheduled for installation this fiscal year) and/or other authorized stabilization processes where operators may be assigned when the furnaces are inoperable.

B. Spent Nuclear Fuel Project (SNFP): Recently, the SNFP achieved several important milestones:

- ! On March 17, DOE-RL approved the Cold Vacuum Drying Facility Phase II SAR
- ! On March 27, K-Basin workers finished grouting the KE and KW Basin drain lines, substantially reducing the consequences of a postulated drain valve leak.
- ! On March 30, Oregon Iron Works delivered the third of 3 test MCOs to Hanford.
- ! On March 30, SNFP scientists approved the final report of SNF oxidation rate testing.

However, other difficulties continue to challenge the project:

- ! Resolution of the unacceptable consequences of a postulated cask drop at KW Basin.
- ! Determination of the consequences of an MCO drop at the Canister Storage Building.
- ! Continued construction delays at the KW Basin affecting the Fuel Retrieval System and the Integrated Water Treatment System

C. 233-S Readiness Assessment (RA): On March 30, the Bechtel Hanford, Inc. (BHI) RA team held its close-out meeting. The team identified 4 pre-start and 6 post-start findings, and recommended that, upon closure of the pre-start findings, BHI be allowed to start D&D operations. The DOE-RL RA is scheduled to begin on April 12, and the Board's staff plans to observe this effort.

D. Tank C-106 Sluicing: Lockheed Martin Hanford Company (LMHC) removed approximately six additional inches of sludge from tank C-106 on March 28. They had intended to remove 12 inches to complete the first two feet of sludge removal. However, only six inches of sludge were removed because a kinked hose in the slurry line resulted in an excessive liquid layer over the solids reducing the sluicing effectiveness. After two feet of sludge are removed, LMHC will analyze temperature data to determine the remaining heat load in the tank. This information will be used for planning additional removal of solids. Volatile organic carbon emissions were well within established limits during the operation.

cc: Board members