

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 26, 2001

TO: K. Fortenberry, Technical Director
FROM: D. Grover and M. Sautman, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending January 26, 2001

Plutonium Finishing Plant (PFP): In response to a Site Rep request, workers checked the drum containing Pu alloy turnings in oil and found that it was unvented and stored in a vault. After this was discussed with Department of Energy (DOE) and PFP managers, PFP began preparations to install a vent clip. The Site Rep has been encouraging DOE and PFP personnel to accelerate sampling those alloy items most likely to be reactive so that it can be decided which items need to be stabilized/repacked to satisfy the June milestone. The list of solutions that PFP is proposing for direct disposal to tank farms range from 2 to 7 g Pu/l, with U concentrations sometimes exceeding 10 g/l. The Site Rep has questioned why these solutions are not suitable for blending, cementation, or precipitation with a more Pu-specific process. (III-A)

Tank Farms: The AY-101 annulus ventilation system was restarted. Annulus video inspections found heavy general corrosion on parts of the primary and secondary steel liners. In one section with particularly heavy scaling, a 2–3 ft long vertical anomaly was seen on the primary tank liner about 300 inches above the current waste level. Additional photographs and video inspections are being performed because shadows and poor lighting precluded clear identification of it.

It was discovered that if 2 status messages occurred too closely that saltwell software communication problems between pumping and instrumentation skids caused one or more of the receiving tanks to not receive both status messages. This resulted in several nuisance timer alarms when isolation valves were repositioned. In one case, a valid alarm was not displayed on an alarm list screen, but this did not affect the associated interlock. Changing the routine so that all status change messages were resent after one minute of the initial message has fixed this.

In response to 6 lockout and tagout (LO/TO) violations over the previous 5 months, CH2M Hill Hanford Group (CHG) had a one-day standdown, initiated a root cause analysis, and is developing corrective actions. CHG has restricted who is authorized to release work packages and LO/TO activities will not resume until next week. (I-C)

Spent Nuclear Fuel Project (SNFP): The shipment of the 2nd multi-canister overpack (MCO) continues to be delayed due to the issue regarding oxygen content in the cask and MCO head space. The oxygen analyzer the project proposed to use would not provide acceptable measurements to verify the TSR administrative control limit. The project has received additional oxygen analyzers and is in the process of testing them. If the oxygen analyzers are determined to function within the expected range, shipment of the MCO could occur as early as 1/30/01. (III-A)

cc: Board Members