

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 9, 2003

**TO:** K. Fortenberry, Technical Director  
**FROM:** D. Grover and M. Sautman, Hanford Site Representatives  
**SUBJ:** Activity Report for the Week Ending May 9, 2003

Plutonium Finishing Plant: In response to a recent Washington Department of Ecology Administrative Order, the Department of Energy directed its contractors to immediately cease operations that would generate any newly generated mixed waste that cannot be treated within 1 year or that would contribute to the backlog of untreated wastes. As a result, Fluor Hanford shut down all thermal stabilization, residue repackaging, bagless transfer system, deactivation and decontamination activities since they generate some secondary mixed waste.

The Site Rep observed scientists open 3 residue containers which had the potential to be unstable based on their descriptions (e.g., casting skulls, carbides). While the actual contents were interesting, there were no signs of reactivity. In addition, none of the requested photographs of other suspect items revealed anything that would prevent the contents from being safely repacked into pipe overpack containers. Stabilization of oxides with <5 wt% Cl at 950/C (even at ½ capacity) corroded two thermocouples and a heating element. In addition the off-gas piping plugged; some of which could not be unclogged and had to be replaced. (III-A)

Waste Treatment Plant (WTP): The Requirements Implementation Assessment Team decided not to pursue an exemption from testing High Efficiency Particulate Air (HEPA) filters at the Oak Ridge Filter Test Facility (FTF). Based on FTF rejection rates and the lack of test data for radial flow HEPA filters, the team did not believe they had a basis for justifying an exemption at this time. Office of River Protection (ORP) managers, however, still hope that this testing policy will be revised before any of the WTP HEPA filters would actually have to be tested.

An embed was discovered missing from an earlier placement at the Low Activity Waste Facility basement interior wall. More rigorous contractor inspections have reportedly found several pieces of rebar missing, but this is being identified prior to the placement being approved. However, these events have led to some placements being delayed. (I-C)

Spent Nuclear Fuel Project (SNFP): Multi-Canister Overpack 224 failed the integrated leak test following processing at the Cold Vacuum Drying Facility. Attempts to eliminate the leak were unsuccessful. Discussions with project personnel indicated the initial path forward was to handle this using the same approach as MCO 63, the previous MCO with an uncorrectable leak. This would entail placing the MCO into an overpack tube at the Canister Storage Building until a recovery plan is developed to weld leaking MCOs. The Site Rep questioned DOE and the project on the advisability of placing MCO 224 into an overpack instead of welding promptly to meet the interim safe storage criteria. The project has since stated that prompt welding is a viable option. By developing the recovery plan to deal with MCO 224, SNFP will have identified the majority of the actions necessary to also place MCO 63 into safe storage. (III-A)  
cc: Board Members