

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 28, 2001

**TO:** K. Fortenberry, Technical Director  
**FROM:** D. Grover and M. Sautman, Hanford Site Representatives  
**SUBJ:** Activity Report for the Week Ending September 28, 2001

Tank Farms: Mr. Sautman observed workers transferring 23,000 gallons of 19 M NaOH into Tank AN-102. This should bring the tank into corrosion control specifications for about a year. Unlike previous additions to other tanks, adding caustic to this tank could increase the settled solids layer thickness to a point where increased gas retention may create a burping tank. A transfer pump and slurry distributor were used to dilute the caustic with waste before contacting the waste surface to minimize precipitation. If sampling results are favorable, another 17,000 gallons will be added in 6 months to ensure the tank stays within specifications for several years. A slight temperature rise at lower tank elevations may indicate that the transfer pump is mixing the caustic into the sludge layer which is desirable. (III-A)

Plutonium Finishing Plant: All plutonium metal items and brushed corrosion products are now in outer 3013 cans, although PFP is still trying to close the weld porosity issue. The first container of lean solution was packaged for direct discard this week. It was also discovered that someone electrically bypassed all of the fire alarm gongs for the backside of 2736-ZB (where the 3013 cans are welded and handled) so that they did not audibly alarm. This situation may have existed since mid-July. An investigation is ongoing. (III-A, I-C)

Recommendation 2000-2: The Office of River Protection (ORP) issued guidance that initially all safety class/safety significant (SC/SS) high-efficiency particulate air (HEPA) filters would be tested at the Filter Test Facility, but that this would eventually be replaced by an independent statistical sampling program. After the staff questioned this strategy, ORP clarified their guidance that all SC/SS HEPA filters will continue to undergo 100% quality assurance testing. (I-C)

Spent Nuclear Fuel Project (SNFP): The SNFP removed 27 Multi-Canister Overpacks (MCOs) in the first 10 months of operations slightly exceeding the modest goal of 25. An estimated 360 more MCOs will need to be processed in the next 34 months to meet the Recommendation 94-1 Implementation Plan milestone. The process improvements instituted by the SNFP in the recent months and a planned transition to around the clock operations will greatly increase the project's ability to meet this milestone. However, equipment problems continue to impede production. In the past two weeks equipment failures delayed shipment of MCO 27 for several days while a broken shaft was replaced and have halted fuel processing until a water treatment system pump can be replaced. The continued equipment problems emphasize the need to properly diagnose failure mechanisms and identify other potential failures if future production goals are to be met. (III-A)

cc: Board Members