

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 9, 2005

**TO:** K. Fortenberry, Technical Director  
**FROM:** R. Quirk and W. Linzau, Hanford Site Representatives  
**SUBJECT:** Activity Report for the Week Ending December 9, 2005

DNFSB Staff Activity: Deputy Technical Director T. Dwyer was on-site observing various Hanford site activities.

Plutonium Finishing Plant (PFP): The project declared a positive unreviewed safety question (USQ) due to an increase in the Hanford site-specific seismic response spectra. In addition to PFP, Fluor Hanford also declared positive USQs for other facilities, including B Plant, U plant, and PUREX.

During a fissile material move, the senior supervisory watch (SSW) identified that seven drums containing fissile material had labels that were missing required criticality safety information. The use of SSWs during fissile material moves was part of the implementation of corrective actions for conduct of operations failures that occurred earlier this year. No clear cause for the criticality non-conformance was identified during the critique.

A separate critique was held for an event in which the airborne contamination level exceeded the allowable limit during deactivation and decommissioning operations in the 232-Z incinerator building. The immediate actions by the workers appeared to be appropriate and no internal or external personnel contamination was found. Permission was given to allow the work to be conducted during a PFP emergency preparedness drill. Drill announcements hampered communications between the personnel at the airborne monitoring station and the work crew until the drill was terminated.

K Basin Closure: The site rep, facility representative, and a Richland Operations Office safety systems oversight engineer walked down portions of the K East to K West hose-in-hose transfer line (HIHTL). A significant number of National Electric Code deficiencies related to the electrical power and instrument and control cables were identified. Cables that were routed through culverts and on an abandoned railroad track were not protected from physical damage. Some of the cables going into the booster pump stations were not protected from the sharp edges of the stainless steel enclosures. Additionally, the pipe connections for the HIHTL at the K Basin structures had inadequate foreign material exclusion protection.

Tank Farm Criticality Safety: The Office of River Protection performed an assessment of the tank farm criticality safety program. The assessment team identified three preliminary findings, eight observations, and one recommendation. The most significant preliminary finding is that procedures did not require prompt notification of appropriate managers when an analyzed sample contained higher than expected concentrations of fissile material.

cc: Board Members