

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 12, 2007

**TO:** K. Fortenberry, Technical Director  
**FROM:** R. Quirk and W. Linzau, Hanford Site Representatives  
**SUBJECT:** Activity Report for the Week Ending January 12, 2007

Washington Closure Hanford (WCH): The site rep attended a Job Hazard Analysis meeting for Building 117N Filter House. The analysis was for work activities to remove hazardous materials from the facility prior to demolition and included removal of the HEPA filters. Much of the filter house is being considered as a confined space and will require anti-contamination clothing with respiratory protection. A number of deficiencies were noted, including the failure to address controls for work that uses open flames or generates sparks (hot work). When questioned about this omission, the work planner stated that they do not insert restrictions in the task instruction that would hinder flexibility in how the task can be completed. There appears to be a tendency for work planners to avoid putting detailed safety control into their work control documentation. The observations were shared with contractor management and RL personnel.

Tank Farms: A large transfer started this week to combine the two double-shell tanks that were planned for use as hot commissioning tanks for the Waste Treatment Plant (WTP). The transfer is planned to move 781,000 gallons and will take three days. One of the tanks was planned for storage of low-activity waste and the other was for high-activity waste. Combining these feed tanks will create operational flexibility for single-shell tank retrieval activities until WTP begins operations. The site rep noted that a large number of nuisance alarms were received at the safety-significant monitoring station for leak detection. A significant number of these came from a defense-in-depth leak detector and resulted in automatic trips of the transfer pump. Actions to repair this instrument circuit prior to the transfer did not resolve the problem.

Solid Waste Retrieval Operations: The site rep conducted a walkdown of retrieval operations in the 4B burial ground (see Hanford Activity Report 12/22/06). A number of large steel boxes of varying sizes and shapes have been unearthed. It was anticipated from records review that 19 boxes would be in this trench but it is currently believed that 31 boxes exist. The project is working to determine the source and contents of the boxes.

The site reps also conducted a walkdown of the 12B burial ground, which is currently being prepared for retrieval operations. Erection of a large weather enclosure (100 feet wide by 150 feet long) has been completed and the site reps noted the installation of fire extinguishers and the location of emergency egress doors. The contractor requested and was permitted an equivalency for some of DOE fire protection requirements. The burial ground does not have a water supply and the equivalency request included relief from the requirement for automatic fire sprinklers and nearby fire hydrants.

K Basin Closure: The Hose-in-Hose transfer system continues to experience operational problems. There were pump trips related to inadequate pressure in the booster pump mechanical seal reservoirs and inadequate pump suction pressure. Additionally, there was a controlled shutdown after an unusual vibration was noted at Booster Station 2.