

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 8, 2011

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending April 8, 2011

118-K Burial Ground Remediation: The site rep attended the plan of the day (POD) meeting and observed remediation activities, including work on the six silos that could have held high dose reactor wastes (see Activity Report 1/5/07). The POD meeting served as the project's pre-job briefing for all work activities being planned that day and was well conducted. Project management and supervisors reviewed safety hazards and controls, active procedures, and site conditions, and they promoted a fair amount of interaction with the work force in the form of "what-if" type questioning. The project has completed clean-out of three of the six silos using the extended reach excavator. During this evolution, remote radiation monitoring instruments are continuously used to identify high dose items and provide the workers in the excavators real-time indication of the dose rate. In one of the silos, silo six, the project has encountered an obstruction, about 10 feet down, that has stopped progress on that silo. The object appears to be a steel lattice structure that is laying flat and it fills most of the 10-foot wide diameter of the silo. The project has not devised a way to remove the obstruction using the current process and they are considering reverting to the more traditional remediation strategy of excavating down on the outside of the silo and pulling the obstruction out horizontally. Contractor management appeared to understand this change could increase the risk of exposure to the workers even though no abnormally high dose items have been found in the silos to date.

U Plant: The Richland Operations Office (RL) and the contractor met last week to discuss RL's open question on the plans to remove the highly contaminated D-10 tank from U Plant (see Activity Report 1/29/10). The contractor's plan is to stabilize the residual liquids in the tank, overpack the entire tank in a shielded container, and transport it for interim on-site storage. RL had questioned if sufficient analysis of corrosion had been completed or if sufficient shielding was provided on the shipping container. The contractor has provided additional calculations and evaluations, which has allowed RL to determine that the risk of failure of the tank is sufficiently low. The contractor plans to conduct additional visual inspections and radiological surveys after the tank is lifted out of the cell and prior to overpacking and transporting it.

209-E Facility D&D: The contractor held a Hazard Review Board in which they were evaluating the procedures and safety evaluations for size-reducing slab tanks that were previously used for plutonium and uranium solutions (see Activity Report 2/25/11). The review board appeared to have adequately reviewed the documentation and asked appropriate questions considering this is a new operation with new equipment (namely the shroud-like enclosure that will provide contamination control during the saw cutting). Last week, the site rep accompanied members of the review board during a demonstration of the equipment, which facilitated the understanding of the process.

Waste Treatment Plant (WTP): The site rep met with the contractor's nuclear safety manager to discuss the Board's letter on spray leaks. The manager said they have done some initial evaluation of the potential impact of changing the spray leak methodology that indicate that some piping in the hot cell of Pretreatment facility could require upgrade to safety class. In addition, the ability of the ventilation system to confine the release would need to be evaluated.