DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 20, 2005

TO: K. Fortenberry, Technical Director
FROM: D. Grover, Hanford Site Representatives
SUBJ: Activity Report for the Week Ending May 20, 2005

Messrs. Feldman and Ogg were onsite reviewing the K Basin Sludge retrieval project. Mr. Quirk was onsite performing site rep duties.

K Basin Closure Project: Several members of the sludge review board commissioned by the Department of Energy Office of Environmental Management were onsite conducting follow-on reviews. These were in the areas of corrective actions for the programmatic issues, engineering, and testing. One member also conducted a walkdown of the K-West Basin (which was unavailable for access during the previous on-site review).

The sludge transfer between basins is expected to commence approximately six months behind schedule. This will lead to the initiation of sludge pumping during the winter. Between transfers the Hose-In-Hose Transfer Line (HIHTL) will be filled with stagnant water. The site rep questioned whether the transfer lines would be able to withstand the forces from freezing water without rupturing. While the project did not know whether this had been evaluated, they were relying on their freeze protection program and operational checks with only water to identify any potential breaches. The rigor of these programs was questioned as they are not credited safety programs administratively controlled in the facility authorization basis. It should be noted that other administrative control programs have been established to protect and verify the integrity of the safety significant transfer lines before use. These include vehicle access barriers around pump boxes and hose connections as well as a preoperational walkdown of the entire transfer line to look for any externally caused damage. These controls would not identify an internally caused failure such as cracked lines from freezing or damage from malfunctioning heat trace lines. DOE Richland and the project personnel promptly initiated efforts to address this issue along with other outstanding issues with the HIHTL authorization basis amendment.

The project has completed welding cover caps on the Multi-Canister Overpacks (MCOs) in the Canister Storage Building, with the exception of seven MCOs in the MCO surveillance program. The project is now preparing to weld cover caps on the eighteen Shippingport Spent Fuel Containers, which are similar to the MCOs. With the cover caps installed the fuel is now in a configuration suitable for extended storage and meets the conditions committed to by DOE in the implementation plans for Recommendations 94-1 and 2000-1. The final MCO of found fuel will likely be welded upon receipt at the CSB and the surveillance MCOs welded after the next head space gas samples are taken.

The project has completed filling the 3rd Large Diameter Container (LDC) with K-East Basin North Load Out Pit sludge and has commenced filling the 4th and final LDC. Any remaining sludge in the pit will be consolidated with the K-East floor sludge.