

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 5, 2005

**TO:** K. Fortenberry, Technical Director  
**FROM:** D. Grover, W. Linzau, and R. Quirk, Hanford Site Representatives  
**SUBJ:** Activity Report for the Week Ending August 5, 2005

K Basin Closure Project (KBC): The site rep walked down the hose-in-hose transfer line route and booster pump boxes. The box lids were noted to be bent, likely from fabrication techniques. A closer examination identified that some bends were large enough to result in significant gaps between the lid gaskets and side panels. The boxes provide a safety significant function to prevent a direct spray release to the environment. It is not clear that the potential for these gaps to affect the safety function has been analyzed. This observation was communicated to the project and DOE. A subsequent project quality assurance inspection of the gaps indicated that the fabrication specification may not have been met. This also raises questions on the receipt inspection of the equipment. The site rep will monitor the resolution of this condition.

Plutonium 238 Drums: The site reps met with personnel planning the in-situ inspection of these drums. The project has identified numerous upset conditions and developed conservative guidance for operations to use if a condition is encountered. The project is also planning to overpack the drums and transfer them to an interim storage location if no upset conditions are encountered. The project is expected to evaluate the overpack and transfer process to determine if any other upset conditions need to be evaluated. The in-situ inspections on three drums are expected to be initiated by the end of the month.

Emergency Preparedness (EP): During the annual site emergency preparedness exercise the site reps noted the lack of a formal DOE assessment of the contractor or DOE performance (see June 24, 2005, activity report). DOE has developed a plan to conduct formal assessments of EP exercises including evaluation at the event scene and incident command post. DOE has identified about twenty personnel who will receive the standard site training for emergency preparedness exercise evaluators to improve their ability to conduct these assessments.

Waste Treatment and Immobilization Plant (WTP): During the installation of a drain line in the Laboratory Facility, bulk pipe was substituted for controlled materials without the appropriate inspection and documentation. The drain line is classified as non-safety related but has a pipe-in-pipe design to allow for leak detection. Corrective actions include additional inspections and removal of suspect materials. Along with correcting the physical errors, the project has initiated an investigation of the programmatic failures.

Tank Farms: A critique was held for work in a potentially oxygen deficient environment in May 2005. The work involved venting nitrogen from an encasement into a vent box. Significant questions remain including adequacy of the work package and hazard analysis.

Cc: Board Members