

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 21, 2008

**TO:** T. J. Dwyer, Technical Director  
**FROM:** W. Linzau and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending November 21, 2008

Staff members J. Abrefah, D. Ogg, and R. Raabe observed a meeting in which the contractor presented the alternatives for the Sludge Treatment Project to an independent review board.

Tank Farms: The contractor declared a Technical Safety Requirements (TSR) violation for failure to have an operable leak detection system during waste transfers. In April 2008, the Office of River Protection (ORP) identified that safety-significant equipment used for leak detection was procured as commercial grade, but commercial grade dedication was not performed. This was formally captured in a report to the contractor in September 2008. The contractor did not declare the system inoperable, did not correct the situation, and this week relied upon the equipment during a waste transfer before declaring the system inoperable.

The site rep observed inadequate conduct of operations during the first waste transfer performed under the new contractor. Personnel, including the Operations Manager and a senior supervisory watch (SSW), failed to ensure the procedure was followed. Steps were performed out of sequence and this resulted in the premature removal of a lock required by a TSR administrative control (AC). The error was noticed by contractor and ORP personnel, but rather than reinstalling the lock, a decision was made to complete the step that had been missed and then start the transfer. This type of transfer, from a waste tank at the 222-S Laboratory to a double-shell tank, had not been performed in more than a year and the operator was not proficient with the procedure. The SSW, whose responsibility should be safety oversight of the operation, had to instruct the operator how to operate the switches on the control panel.

Plutonium Finishing Plant (PFP): The contractor declared an unreviewed safety question (USQ) because clarifications were required in the DSA to adequately address a hydraulic oil fire (see Activity Report 11/7/2008).

The contractor submitted a Justification for Continued Operation (JCO) for the HEPA filters that are older than 10 years (see Activity Report 11/14/08). The JCO cites the low risk of a large fire and credits existing controls, such as the Fire Protection and Material Management Programs, and the Fire Sprinkler System. The only compensatory action provided in the JCO is a daily combustible loading inspection, but there are no actions that directly provide greater assurance of the integrity of the older HEPA filter banks.

Solid Waste Storage and Disposal: T-Plant and the Waste Receiving and Processing Facility declared USQs because of the uncertain strength of HEPA filters older than 10 years.

A worker received minor skin contamination at the Effluent Treatment Facility when the mobile work platform he was helping move contacted and damaged a polyvinylchloride (PVC) pipe that contained water with low levels of contamination. During the critique, other workers stated that this pipe had been broken multiple times and replacing it with metal piping had been planned but never implemented.