

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 24, 2016

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox and D. Gutowski Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending June 24, 2016

**Plutonium Finishing Plant (PFP).** PFP management held a critique and a hotwash discussion to collect facts related to the criticality alarm that occurred during the performance of a monthly surveillance (see Activity Report 06/24/2016). They determined that surveillance performance was per procedure and that the most likely cause of the alarm was a failed component. Workers confirmed a switch failure and replaced the switch allowing the facility to exit a TSR that precluded some types of deactivation work in parts of 234-5Z. Workers also continued work to recover external areas that were contaminated when the facility was evacuated. Although overall response to the criticality alarm was good, the hotwash determined that some workers believed that the alarm was a take cover alarm instead of a criticality alarm. This misconception was mitigated by communication between workers in the facility and does not appear to have slowed the facility evacuation. The hotwash also determined that radio communications were not reliable. This was an issue during two previous emergency planning exercises. Although action was taken to improve the radio system, communication problems continue. Event response was also slowed by lack of survey equipment since the equipment was inside the evacuated facility. The problem was resolved by robust assist responses from neighboring facilities.

Workers voided an RWP and spread contamination on the 234-5Z duct level while installing a jumper to support 26 inch vacuum piping removal. The event was similar to one that occurred earlier this month (see Activity Report 06/03/2016). Actions initially identified during an in progress ALARA review may not effectively prevent additional occurrences. RL and contractor management are addressing this concern.

**T- Plant.** The site representative observed an evaluated emergency planning drill. The scenario was a helicopter crash in a waste staging area with a fire. Two firefighters were contaminated while fighting the fire. The event resulted in the declaration of an alert with take cover at the T-Plant complex and a simulated take cover for the rest of the Hanford west area. Although there were minor difficulties in establishing accountability for facility personnel, overall performance of both the Facility Emergency Response Organization and drill control team was good.

**Tank Farms.** The contractor installed the first of four new extended reach sluicer systems into tank AY-102 to support resumption of waste retrieval later this year.

The Hanford Atomic Metal Trades Council sent a letter to ORP and the tank farm contractor demanding additional controls to protect workers from tank vapors including extended vapor control zones, expanded mandatory use of respiratory protection equipment, restriction of waste disturbing activities to weekends and nights, limiting respiratory equipment selection, and improved communication. The contractor responded stating that HAMTC's input would be considered in good faith. However, any changes in approach must be implementable such that work can continue in a manner that makes a positive difference in worker safety and health.

**Waste Treatment Plant.** ORP transmitted a letter to the contractor that identifies quality issues associated with recently delivered process hazards analysis reports.