

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 12, 2016

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox and D. Gutowski Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending August 12, 2016

P. Fox was offsite for training. M. Bradisse was on site for site rep augmentation.

**618-10 Burial Grounds.** A worker observed smoke coming from an excavated waste drum staged for characterization. Facility workers took cover as a precaution, and the fire department responded. The drum stopped smoking on its own after about a minute and was reburied along with other uncharacterized drums. Characterized drums from this batch contained uranium chips in oil. Contamination surveys have detected no spread of radioactive material beyond posted areas and fixative has been sprayed in the High Contamination Area where the event occurred.

RL approved a new revision to the 618-10 DSA, which includes remediation activities for the 316-4 Waste Site. This site was historically used for disposal of uranium-bearing liquid waste.

**Plutonium Finishing Plant (PFP).** On Saturday, while a D&D crew was preparing the 2727-Z building for demolition, a worker cut a pressurized refrigerant line and was sprayed. The critique, which was heavily attended by contractor senior managers, noted miscommunication between the worker and field work supervisor, separate and different pre-job briefs for different work groups, and an inconsistent understanding of the definition of a “cold and dark” facility.

The contractor issued a revised Plan of Action for the upcoming PFP demolition readiness assessment. They are also finalizing a revised Implementation Plan. RL issued their surveillance plan for federal oversight of the readiness assessment.

**Tank Farms.** The contractor initiated pilot scale testing of vapor detection and monitoring equipment. They are currently evaluating several technologies, including both direct reading and spectroscopic instruments, in and around A and AP farms. The site rep and staff member discussed testing activities and observed equipment placement with contractor engineers.

The contractor’s Joint Test Working Group (JTWG) reviewed a sub-test plan supporting the Tank Farms Automation project for integrated wireless communication. This includes both safety-significant (SS) and general service (GS) components. The SS components include safety instrumented functions, such as pit temperature and tank annulus level monitoring, in double-shell tank (DST) farms. Instruments will use a GS wireless network to communicate SS alarms to a control room using SS communication protocol. In-farm equipment is already installed in the DST farms. The JTWG approved the plan and forwarded it to the Joint Test Group.

**222-S Laboratory.** The 11A hotcells have been restricted from use since the power failure last month (see Activity Report 7/15/2016). A supply air damper for the hotcells closed upon loss of power as designed. However, the damper actuator failed and lab personnel have been unable to restore required differential pressures in the hotcells. The contractor is preparing a technical evaluation for an interim configuration of this damper to allow limited hotcell operations while preparing for the replacement of the failed actuator, which is expected to take several months.