

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 11, 2016

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox and D. Gutowski Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending March 11, 2016

**Tank Farms.** The contractor completed the supernate transfer from AY-102 to AW-105 starting last Thursday running through Sunday (see Activity Report 3/4/2016). The site rep observed field and control room activities supporting this transfer which moved approximately 541,000 gallons of waste. In the early phases of the transfer, there was a problem with a selector switch in AW farm used for safety-significant temperature monitoring. The component was repaired before it was used for a TSR surveillance. The site reps observed control room activities and pre-job briefings to prepare for sluicing solids to AP-102. The retrieval team is working through last minute equipment and procedure issues. The contractor intends to run solids retrieval over the weekend and then pause to evaluate monitoring data and evaluate any adjustments to controls or boundaries. Preparatory activities supporting AY-102 waste removal were impacted by four stop works related to worker concerns with supplied air components over the past weeks.

**Site Infrastructure.** The site reps met with RL personnel to discuss site infrastructure improvement efforts. Throughout FY2016, there have been substantial repair and reconditioning of the 13.8kV and 230 kV electrical transmission and distribution systems, primarily in the 200E area to support the high-level waste mission. Additional work on the 230 kV system is planned for FY2017 pending funding. Work also continues on repair and replacement 4.5 miles of site water mains, many of which are original installations from the Manhattan Project.

**Plutonium Finishing Plant (PFP).** The PFP Corrective Action Review Board (CARB) met to evaluate the results of an analysis that was performed to determine the cause of unexpected chemical reactions in Plutonium Reclamation Facility canyon waste (see Activity Report 10/9/2015). The analysis determined that the root cause was the lack of a defined process that requires an evaluation for chemical compatibility during work planning. Additionally, although the work was being conducted in a process canyon, the waste was not characterized. Rather, planning was based on process knowledge. It was also noted that the planning did not involve personnel with adequate chemistry knowledge to recognize the potential for the reaction.

**Sludge Treatment Project.** Last week, the site rep and other staff members met with contractor representatives regarding the status of equipment testing. The contractor's ongoing work is intended to test production equipment before the equipment is installed in K-basin. Operators will also have an opportunity to gain familiarity with the equipment and test procedures in a non-radiological environment before using the equipment in the challenging K-basin radiological environment. The contractor has received most components and is installing the equipment at the Maintenance and Storage Facility. Testing and training is expected to start in April.

**Waste Treatment Plant (WTP).** The site rep observed a meeting of the Startup Joint Test Group (JTG). The site rep noted that the JTG must still resolve some questions regarding the identification and documentation of required startup testing, especially with regard to systems and equipment placed in service by the construction organization and sub-contracted vendors.