

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 10, 2014

**TO:** S. A. Stokes, Technical Director  
**FROM:** D. Gutowski and R. Quirk, Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending January 10, 2014

**Plutonium Finishing Plant (PFP).** PFP facility management initiated an investigation to determine why workers and supervisors were not complying with work documents in the field. The Condition Report (CR) that identified this adverse trend cites many other CRs which identify specific examples where instructions were not followed during the last few months. The failure to follow work instructions at PFP has been a problem before and a significant number of corrective actions were taken to resolve the associated causes after a similar CR was written in May 2011. In June 2013, Richland Operations Office personnel (RL) concluded that the corrective actions were effective and closed open items associated with historical work execution problems. After the latest CR was written, an RL Facility Representative (FR) initiated a new review of the corrective actions for the old CR. The FR concluded that many of the good practices that were being followed last June have declined and are no longer frequently used.

**Tank Farms.** A team from the contractor's corporate parent began a review of implementation of safety basis requirements in the tank farms due to the three recent TSR violations in the tank farms (see Activity Reports 9/6, 10/4, 12/27/2013). The assessment will have four parts which started with a review of TSR implementation and will continue with reviews of the contractor assurance system, data management, and safety culture. The Office of River Protection (ORP) is initiating a parallel assessment.

**Waste Treatment Plant.** The Senior Safety Design Integration Team (SDIT) reviewed the draft Safety Design Strategy (SDS) and supporting travelers for the High Level Waste facility. The Senior SDIT concluded that the products were incomplete, with too many "To Be Determined" values. The senior SDIT directed the facility SDIT to finalize these documents.

The contractor briefed ORP on a proposed Justification for Continued Design, Procurement, and Installation that would authorize continued design work and procurement for vessels RLD-7 and RLD-8. The contractor believes that by restricting transfers of certain types of waste into vessel RLD-8, they can eliminate hydrogen explosion hazards and remove vessel purge.

**River Corridor Closure.** While pumping grout beneath the vault that was under the former Building 340 (see Activity report 8/30/2013), a fitting on the grout delivery system failed resulting in one worker receiving a minor injury while other workers and equipment were sprayed by the pressurized grout. Workers were wearing protective clothing and respirators because the work was in an airborne radioactivity area and contamination area. The hazards from using pressurized grout were not identified in the work planning process. A number of proposed corrective actions were identified, including using a smaller grout pump or delivery system, using whip checks on the hoses, ensuring equipment is rated for the proper pressure, and including the controls in the job hazard analysis.

**222-S Laboratory.** There was a chemical spill in the 222-S Laboratory. No radiological material was involved; however, communications of the event to ORP and entry into the abnormal operating procedure were not completed in a prompt fashion.