

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 6, 2015

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox and D. Gutowski Hanford Site Representatives  
**SUBJECT:** Hanford Activity Report for the Week Ending February 6, 2015

**Sitewide Respiratory Protection.** In December, water softener resin beads entered the washing system for respirator masks. The vendor claims the beads are chemically benign, but can cause skin and eye irritation. They have been found on cleaned masks received on site. The Tank Farms Contractor, Central Plateau Contractor, and River Corridor Contractor all restricted the use of impacted masks resulting in significant reduction in work activities. RL is working with the mask vendor and site contractors to recover from this event.

**Sludge Treatment Plant (STP).** DOE approved Revision 1 of the STP Engineered Container Retrieval and Transfer System (ECRTS) PDSA. The STP Safety Design Strategy, which was submitted for approval along with the STP ECRTS PDSA, was not approved. The DOE SER included three conditions of approval (COAs) for the PDSA. The COAs address a number of RL concerns related to the contractor's selection of hazard controls used to protect facility and co-located workers from spray leaks, explosions, and over-pressurizations. DOE requested that the contractor provide a modified PDSA after closure of the COAs.

**Waste Encapsulation and Storage Facility (WESF).** The contractor is performing a 60% design review of the Preliminary Design Report for the WESF Stabilization and Ventilation Project. One major change from the 30% design (see Activity Report 7/25/2014) is the method by which grout will be introduced to stabilize contamination and reduce ventilation load. An ALARA review of the original method showed unacceptable doses. The results of this review were used to develop a new approach with lower radiological doses.

**Plutonium Finishing Plant.** The contractor reported that changes in fan loading produced by adjusting dampers caused the reduced vibrations on fan EF6 (see Activity Report 1/23/2015). The adjustment allows operation in a more stable region of the fan operating curve. The contractor has instituted an administrative control to ensure that the fan operation remains stable and has removed the emergency use only restriction from the fan.

**Waste Treatment Plant.** The contractor initiated criticality hazards assessments for the High Level Waste Facility. During the kickoff meeting, there was substantial discussion of potential uses and limitations of sampling. The contractor acknowledged that sampling would be ineffective for detection of large, sparse fissile particles. However, sampling for other parameters such as absorbers will likely be a part of any control strategy.

**618-10 Burial Grounds.** The contractor completed a partial implementation of a DSA revision. The implementation was specifically for Modified Vertical Pipe Unit (VPU) variant identification. The contractor performed an Implementation Validation Review as part of the implementation process. Other planned activities related to VPU and Trench remediation will be addressed in a subsequent evaluation.

There was another spread of contaminated material from the burial grounds. This is the sixth contamination spread since last June (see Activity Reports 6/6, 7/25/2015).