

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 24, 2017

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending March 24, 2017

Staff member D. Cleaves was on site observing Plutonium Reclamation Facility demolition and providing Resident Inspector support.

Tank Farms. The contractor declared a PISA when they discovered an input value error in a supporting calculation for the in-pit heater safety basis amendment. This amendment has been approved by ORP, but is not fully implemented (see Activity Report 9/2/2016). The in-pit heaters will not be operated and have been administratively locked as a compensatory measure.

Plutonium Finishing Plant. The demolition team paused demolition on the Plutonium Reclamation Facility (PRF) and started demolition of the 242-Z americium recovery facility. This sequence supports removal of special handled waste packages from 242-Z that could be damaged by falling debris while demolishing the PRF walls closest to 242-Z.

One of two operating exhaust fans failed catastrophically, and smoke from the fan's damaged drive belt caused a fire alarm in 291-Z. 242-Z demolition activities were terminated and the demolition team was redirected to support Hanford Fire Department investigation of the alarm. Workers also performed an orderly shutdown of work in 234-5Z and exited the facility because of reduced exhaust ventilation flow. The damaged fan was secured and isolated. Ventilation was restored using the previously operating undamaged fan and a backup exhaust fan.

Solid Waste Operations Complex. RL directed the central plateau contractor to perform an evaluation of potential fire hazards associated with TRU waste packaging and storage arrays in their facilities. The goal of the evaluation is to determine if the facility fire hazard analyses (FHAs) adequately characterize the fire risks associated with exposed TRU waste packaging during handling and storage. This action is designed to ensure that FHA effectiveness issues identified by EM's WIPP accident investigation board do not exist at Hanford.

Waste Treatment Plant. The contractor sent ORP a letter outlining their recovery plan for submitting a revised PDSA for the Low Activity Waste facility (see Activity Report 1/20/2017). The plan includes use of tools agreed upon by the joint ORP/BNI working teams to resolve comments and issues while revising PDSA chapters and Hazard Analysis tables.

Soil and Groundwater. Contaminated ion exchange (IX) resin beads were found in an area that was not radiologically controlled. A contractor critique of the event determined that the beads had been vented from the system downstream of the IX. Although this section of the system is known to have the potential for internal contamination, procedures that govern routine operation of the system have not been evaluated for implementation of radiological controls.

Respiratory Protection. The Mission Support Contractor and Tank Farms Contractor stopped work on use of all tight fitting respirators (excluding minimum compliance and emergency use) due to concerns that residues on masks are causing facial irritation.