

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 17, 2017

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending November 17, 2017

Staff members J. Abrefah, D. Cleaves, D. Minnema, and C. Scheider were on site for a review of Building 324 soil remediation activities. D. Cleaves also provided Resident Inspector support.

PUREX Plant. The contractor completed stabilizing the waste in damaged storage tunnel one (see Activity Report 5/12/2017). The work phase was completed in just under six weeks and resulted in the placement of 4,434 cubic yards of grout into the tunnel to cover the stored waste and eliminate the potential for future tunnel collapses. The contractor's robust planning effort, which included several high fidelity mockups and substantial contingency planning, resulted in completion of the work without significant issues. The contractor has started to demobilize the grout placement equipment and will remove the cover that was placed over the tunnel as an interim measure (see Activity Report 5/26/2017). DOE and the contractor are still evaluating options for stabilization of storage tunnel two.

Waste Treatment Plant (WTP). Based on direction from the EM-1 Special Projects Office that was received during the recent Project Peer Review (see Activity Report 11/3/2017), ORP has established a new Low Activity Waste Facility DSA completion date that reduces development and approval time by six months. Consequently, ORP has co-located the majority of their safety basis oversight personnel with the WTP contractor to enable a more rapid decision and issue resolution process. To ensure an effective final review of the DSA, a small cadre of ORP nuclear safety personnel, augmented by new external resources, will remain independent of the development effort. Some individuals involved in the development effort may also support the review, but will be precluded from reviewing sections of the DSA that they worked during development. ORP issued a revised safety basis review plan that supports the above effort.

Since the WTP LAB will not contain sufficient radiological inventory to require a Documented Safety Analysis while supporting only the Direct Feed Low-Activity Waste mission, ORP decided to postpone the upcoming PDSA update. Work on the PDSA will resume when the LAB prepares to transition to a nuclear facility with a Hazard Category 3 inventory. ORP's direction also requires the contractor to maintain configuration control and perform adequate maintenance of safety-significant structures, systems, and components identified in the PDSA to support future full scope operation of the facility.

Emergency Preparedness. The Resident Inspectors and staff observed the quarterly limited emergency preparedness exercise. The scenario involved a chlorine leak at the Water Treatment Plant. No nuclear facilities were impacted.

Central Plateau Surveillance and Maintenance. Contractor personnel performed three limited scope emergency preparedness drills that primarily assessed event scene activities. The scenarios were an airplane crash into an inactive Hazard Category 3 facility adjacent to T-Plant, a waste drum spill at REDOX, and a load drop onto the REDOX sand filter.