

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 11, 2017

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending August 11, 2017

PUREX Plant. The RL Senior Review Board (SRB) met to consider DSA changes to support stabilization of the storage tunnels. The revision would allow placement of grout into Storage Tunnel One as well as support activities including removal of some soil to allow placement of a work platform over the section of tunnel that was filled after the May subsidence (see Activity Report 5/12/2017). The hazard control approach does not substantially mitigate collocated worker risk due to a tunnel collapse resulting from a seismic event or exposure from releases that could occur if a fire occurred in the tunnel. However, these risks will be substantially reduced when the contractor completes grout placement. The SRB recommended approval.

Plutonium Finishing Plant (PFP). The Washington Department of Health informed RL and the contractor that the results of a high volume air sample near a public highway that passes through the site near PFP during the June 8 contamination spread indicated the presence of low levels of americium and plutonium (see Activity Report 6/9/2017). The levels did not exceed 10 CFR 835 exposure limits RL is evaluating additional data to characterize the event.

Workers egressed the 234-5Z facility when two CAM alarms occurred. The alarms resulted from a contamination spread caused by a leak that occurred while filling a contaminated pipe with foam in preparation for its removal during demolition. All workers in the facility were wearing respiratory protection and there were no cases of personnel contamination.

A stop work was declared by a representative of a local union council because of concerns regarding worker exposure during recent contamination spread events at PFP. An agreement was subsequently reached to allow work to continue. The agreement will result in expanded demolition zone boundaries and accomplishment of higher hazard work on back shifts.

Waste and Fuels Management Project. The contractor determined that the PISAs related to evaluation of secondary events caused by natural phenomena hazards constituted a positive USQ for both the Waste Encapsulation and Storage Facility (WESF) and Canister Storage Building (CSB) (see Activity Report 7/28/2017). The CSB did not require any operational restrictions, but use of the WESF Ion Exchange Module will be restricted unless a recovery plan is in place.

Waste Treatment Plant. ORP and the contractor agreed how to address external storage of carbon dioxide and anhydrous ammonia. The carbon dioxide tank will be included in the Low Activity Waste (LAW) PDSA and DSA. The ammonia tank, which is further away from the facility, will be considered outside of the nuclear facility boundary. It will be treated as a standard industrial hazard with impacts to LAW treated as man-made external hazards.

Tank Farms. The contractor completed their readiness checklist and declared readiness to resume retrieval of C-105 to AN-106. An attempt to startup this week was unsuccessful due to the C-105 slurry pump not starting up. The contractor is troubleshooting the pump.