

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 30, 2017

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending June 30, 2017

242-A Evaporator. The contractor is completing final testing prior to commencing campaign EC-6. If the reboiler leak test in progress is satisfactory, they plan to introduce waste to the facility over the weekend.

Tank Farms. The contractor submitted the Evaluation of the Safety Situation (ESS) on the In-Pit heaters PISA to ORP (see Activity Report 6/16/2017), removed operational restrictions on the use of in-pit heaters, and implemented the safety basis amendment.

The contractor installed a new transfer pump into AW-106. They plan to transfer AW-106 supernate to AW-102 following evaporator campaign EC-6 to provide feed for campaign EC-7.

Workers discovered a spray ring in the 213-B laydown yard with smoke and fire damage. The fire had already self-extinguished. It appears that the mechanism of ignition was the same as a fire in the same yard that occurred last year, where an uncovered metal cylinder acted as a solar oven. No radiological material was involved in the incident.

Plutonium Finishing Plant (PFP). The contractor Hazard Review Board (HRB) evaluated the work package that will be used to perform demolition of the PFP ventilation stack. The stack will be toppled using explosives and then removed using standard demolition methods. The HRB rejected the package pending clarification of acceptable wind conditions for explosively toppling the stack and required fall protection for workers that will be placing explosives.

The contractor started demolition of 291-Z, the PFP ventilation facility. Demolition of 236-Z remains paused pending modification of hazard controls based on a causal analysis that is being performed as a result of the recent contamination spread (see Activity Report 6/9/2017).

Waste Treatment Plant (WTP). The contractor responded to ORP direction related to resolution of DOE Criticality Safety Support Group comments regarding the contractor's approach for ensuring WTP criticality safety. In the response, the contractor recommended against application of ANSI/ANS-8.14, *Use of Soluble Neutron Absorbers in Nuclear Facilities Outside Reactors*, for co-precipitated plutonium waste processing operations at the facility since they do not currently intend to credit soluble poisons during processing at WTP. The contractor also concluded that ANSI/ANS-8.24, *Validation of Neutron Transport Methods for Nuclear Criticality Safety Calculations*, is adequately implemented for WTP and supports start of low activity waste processing. However, they also concluded that their validation report would be improved if updated using a more current version of the Monte Carlo N-Particle Transport Code.

REDOX Plant. The contractor stopped work on the new REDOX roof when unexpected contamination was found in a pipe that was being removed as interference to the roof structure. Good worker response prevented any contamination spread or personnel contamination.