

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 17, 2018

TO: Christopher J. Roscetti, Technical Director
FROM: P. Foster and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending August 17, 2018

DNFSB Staff Activity: D. Brown was onsite to observe the Plutonium Finishing Plant (PFP) Management Assessment. M. Bradisse was onsite to support resident inspector activities.

Tank Farms: The Safety Basis Approval Authority approved an amendment to the Tank Farms DSA (see 8/10/2018 report). In addition to other changes, the amendment incorporates a design and operational improvement into the DSA that provides safety-significant (SS) liquid level monitoring for double-shell tanks (DSTs). The system is designed to detect high liquid level in the DST annulus and provide SS local indication of high annulus level, as well as an SS alarm to the tank farms central control room. This change is implemented to fulfill deliverable action 3-1 of DNFSB Recommendation 2012-2. The amendment approval requires implementation of safety basis change within 60 days.

Plutonium Finishing Plant: On August 13, 2018, an independent team hired by the contractor commenced a two week-long management assessment of corrective actions for the resumption of PFP low hazard demolition work. The assessment scope includes a review of all pre-start corrective actions and compensatory measures specified as prerequisites for the resumption of low hazard demolition activities. The management assessment plan identifies seven performance objectives with related lines of inquiry. During the first week, the seven-member team observed demonstrations and drills in a staged training area and conducted a series of interviews with PFP personnel.

Plutonium Uranium Extraction (PUREX) Plant: The contractor has made significant progress on the preparations for the stabilization of PUREX Storage Tunnel Two (see 12/8/17 report). The onsite grout batch plant is largely installed and is being prepared for startup testing. A test run of the selected grout recipe is planned for later this month to demonstrate the system can deliver grout that meets required specifications. The contractor has also begun the installation of the grout conveyance systems into the selected tunnel risers.

Waste Encapsulation and Storage Facility (WESF): The Hazard Review Board (HRB) met to evaluate a work package that will be used to inspect, decontaminate, replace, and refurbish components of the hoists and crane inside the WESF canyon. This equipment will be used for planned future activities, including the transfer of waste capsules to dry storage containers. The HRB approved the work package with comments.

Waste Treatment Plant (WTP): The resident inspectors met with ORP's Senior Technical Authority for WTP to discuss the status of ongoing work to resolve issues identified in the January 20, 2012, DNFSB letter to DOE regarding erosion and corrosion wear design for process vessels and piping. The contractor's work to resolve the issues is near completion and ORP has completed their review of associated design documents. A meeting is being scheduled between ORP and DNFSB staff subject matter experts to discuss the results of the effort.