

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 5, 2018

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** P. Foster and P. Fox, Hanford Resident Inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending October 5, 2018

**PUREX Plant:** DOE-RL authorized the placement of grout in the PUREX Storage Tunnel 2 after the Washington State Department of Ecology granted temporary authorization under the Hanford Dangerous Waste Permit. The tunnel is at risk of collapse and the addition of grout will stabilize the structure similar to the work performed on Storage Tunnel 1 (see 12/8/17 report). The contractor began grout placement activities this week and is slowly ramping to a full operational tempo. While observing the initial pre-job briefing, a Resident Inspector noted that the team lead methodically stepped through the work package and highlighted the prominent hazards associated with the planned activities. There was also significant emphasis on the need to be slow and deliberate the first few days given the newness of the activity. During grout placement, the contractor observed more vibration than expected on one of the grout pumps, which caused the associated camera in the tunnel to shake and occasionally lose focus. Rebooting the camera corrected the immediate concern; however, the contractor is working on a more permanent solution to better protect the operation of the camera. To date, the contractor has placed approximately 1,600 cubic yards of grout or 4% of the estimated amount necessary to complete the project.

**Tank Side Cesium Removal System (TSCR):** The contractor published revision 0 of RPP-RPT-60822, *Low-Activity Waste Pretreatment System Sub-Project One Safety Design Strategy*. The document describes the major hazards, as well as the overall safety strategy and related decision processes that the contractor will use to support the first phase of the modified Low-Activity Waste Pretreatment System (LAWPS) Project. The first phase includes development and testing of a modular TSCR system which will be set up near the AP Tank Farm. Phase one also includes infrastructure upgrades within the AP Farm since the contractor will use its existing infrastructure to support the LAWPS capability. Based on the required evaluation, the contractor will implement this sub-project as a major modification to the Tank Farm DSA and will deliver their proposed safety basis changes to DOE as an amendment to that document.

**Waste Treatment Plant (WTP):** The contractor kicked off the WTP Phase 1 Integrated Safety Management System (ISMS) review this week. The goal of this activity is to provide an independent corporate assessment of the ISMS for the Commissioning Phase of WTP. The review will focus on the Phase 1 core expectations to evaluate whether the project's safety management programs and instructional process have been effectively implemented.

**105-KW Basin:** A Resident Inspector observed a contractor team perform hazard analysis activities related to retrieval of filter media from the basin sand filter. The sand filter is part of the basin skimmer water cleanup system and removes particulate from the basin water. Consequently, the filter media is highly contaminated. The retrieval supports eventual closure and demolition of the 105-KW basin and will be performed after completion of the ongoing sludge retrieval operations. The Resident Inspector noted that the lead analyst and supporting design engineering staff were well prepared for the activity.