

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 23, 2018

TO: Christopher J. Roscetti, Technical Director
FROM: P. Fox, Hanford Resident Inspector
SUBJECT: Hanford Activity Report for the Week Ending November 23, 2018

Tank Farms: A contractor work team successfully installed an Extended Reach Sluicing System (ERSS) into AX-102. This is the first of three ERSSs that will be installed into the tank to support waste retrieval. The contractor expects to start AX farm waste retrieval before the end of the fiscal year.

In a letter dated 11/6/2018, ORP informed the Board that Action 3-1 of the DOE Implementation Plan for Board Recommendation 2012-2 is complete. Action 3-1 resulted in the installation of safety-significant annulus level detectors in all active double-shell tanks. A detector was not placed in the AY-102 annulus because a contractor analysis determined that, because of the retrieval of waste from the tank, annulus level cannot exceed the limit (see 11/16/2018 report).

Building 324: A contractor work team received a remote excavation arm (REA) and installed it in the B hot cell. The REA is one of two that the contractor will use to retrieve contaminated soil from below the cell.

A piece of concrete fell from the ceiling of the Shielded Material Facility (SMF) in Building 324. The cause appears to be spalling induced by corrosion of metal embedded in the concrete. The initial evaluation conducted by contractor engineering determined that it is unlikely that the event indicates a significant structural issue. However, there remains a risk of injury to personnel located inside the SMF if additional concrete falls. Contractor management has restricted access to the affected area and will perform additional inspections to determine actions necessary to support safe entry into and use of the SMF.

T-Plant: The contractor's Hazard Review Board (HRB) met to evaluate a work team's readiness to repair a sump and leak detector alarm system that was damaged while placing a sludge transport and storage container (STSC) into storage (see 11/9/2018 report). The work will require movement of an STSC to provide room for the crane to retrieve the system. The work team will then replace a crimped cable and, then inspect and, if necessary, repair a second cable that may have been strained during the event. The work team noted that the leak detector has components that are fabricated from relatively fragile ceramic material and questioned actions that would be necessary if they inadvertently damaged the component. Managers stated that a spare component is available. Additionally, although the Field Work Supervisors (FWS) had an excellent understanding of the work instructions, it did not appear that they had thought about job staffing, and actions necessary to optimize the work activity and minimize dose. The HRB chair noted the weakness and withheld approval of the package pending a FWS walk down of the work area and subsequent discussion of the work execution. The Resident Inspector also noted that, although the review was formal, the HRB focused mostly on a high level review of the work instructions and on work team implementation of the work instructions. While a detailed review of the hazard controls may have been accomplished by the HRB voting members outside of the meeting, the depth of that review was not clear from the discussion.