

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 1, 2019

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** B. Caleca and P. Fox, Hanford Resident Inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending February 1, 2019

**DNFSB Staff Activity:** M. Sautman was onsite to provide resident inspector training. D. Brown was onsite attending Hazardous Waste Operations and Emergency Response training.

**105 KW Sludge Retrieval:** A resident inspector and visiting resident inspector observed a pre-job meeting for sludge retrieval operations from the basin and observed operator performance in the Engineered Container Retrieval and Transfer System equipment operations center for one retrieval evolution. The resident inspectors did not observe any deviations from the work package and the work crew completed the retrieval task in under an hour. The contractor is currently performing annual crane maintenance at T-Plant. Consequently, once the container is filled, the contractor will hold it at 105KW until T-Plant is ready to receive it.

**Tank Farms:** The contractor is reviewing a preliminary design of tank system upgrades that support the delivery of feed to the LAW facility. The upgrades include installation of new transfer piping and rerouting of existing transfer lines, as well as modifications to the AP-102 and AP-106 waste transfer systems. The upgrades will also integrate with modifications that support installation and operation of the tank side cesium recovery system (TSCR).

The contractor held a Process Hazard Analysis (PrHA) meeting and a hazard control selection meeting to address design evolution consistent with completion of a preliminary design of the TSCR system. Among the changes addressed were changes in the size and layout of the process enclosure, addition of a decontamination spray down system, and rerouting of piping and installation of an environmental cabinet to improve accessibility of some system components. The PrHA meeting also addressed new scenarios and suggestions that were identified by the Safety Design Integration Team since the original PrHA.

The resident inspectors observed the successful removal of a thermocouple from tank A-104. They noted minor radiological control deficiencies similar to those observed during the AP-102 pump removal (see 1/25/2019 report). Additionally, the radiological work permit requires hoods as part of a worker's anti-contamination PPE when contamination may drop from overhead work. The resident inspectors noted that a small number of the workers within the work area did not wear hoods although wind could have potentially spread contamination during the crane lift.

**Waste Treatment Plant (WTP):** The resident inspectors walked down the LAW facility. They noted an improvement in housekeeping and that there were substantially fewer cases of missing or damaged pipe system cleanliness covers, non-compliant storage of Q level material, or unattached tags similar to those noted during a November walk-down (see 11/30/2018 report).

**Tri-Party Agreement:** DOE released the *2019 Hanford Lifecycle Scope, Schedule, and Cost Report* that is required annually by the agreement. The report outlines significant increases in both cost and duration for remaining Hanford site cleanup work.