

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 6, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending March 6, 2020

Plutonium Finishing Plant (PFP): During retrieval and loading of Plutonium Reclamation Facility debris, project personnel identified three roll-on/roll-off containers that were leaking liquids that had been introduced into the containers with the waste. Waste being placed in the cans frequently has the consistency of thin mud due to ponding and retention of water used for dust suppression in the excavation area. All three containers were identified within the high contamination area of the project before they were released for shipment to the Environmental Restoration and Disposal Facility (ERDF). These containers had been prepared and loaded using methods designed to control residual liquids that the project team had developed based on their past experience with leaking containers (see 2/7/2020 and 2/14/2020 reports). Project managers continue to work to improve their controls. Their efforts include exploring alternative water absorbing materials for use in the containers, as well as procuring some watertight cans that can be buried on delivery to ERDF. Additionally, project personnel have recently implemented changes to their method for retrieving the soil containing waste to prevent loading of oversaturated material into the containers. A risk of contaminated liquid leakage during transportation of the containers remains until the project is able to identify and implement fully effective controls for the containment of residual liquids.

Building 324: The contractor held an Executive Safety Review Board (ESRB) meeting to review the root cause analysis, barrier analysis, and corrective action plan developed by the Building 324 resumption team. These documents are intended to address the causes of contamination events that prompted a suspension of radiological work at the facility (see 11/15/19 report). At a previous meeting, the ESRB had requested additional corrective actions to address the potential for similar problems at other facilities since common practices are used by the contractor across the site, particularly in the area of change management. Additionally, the ESRB had directed additional content to address safety culture problems that the resumption team identified. The ESRB approved all three documents. Restart of nuclear operations remains contingent on RL concurrence on the path forward and completion of pre-start corrective actions.

Tank Side Cesium Removal (TSCR) System: DOE approved the TSCR Critical Decision (CD) 2/3 milestone. The approval authorizes full construction of TSCR system and the waste transfer systems that deliver low-activity waste to the Waste Treatment and Immobilization Plant. The TSCR equipment is currently undergoing factory acceptance testing.

Tank Farms: Health Physics Technicians found contamination on material in a radiological material area (RMA) that was not posted as a contamination area. Additional surveys did not identify further contamination spread outside of the RMA. Contractor Management is performing an event investigation to identify facts related to the discovery.

Federal Oversight: A facility representative completed final qualifications and will be assigned to oversight of the Waste Encapsulation and Storage Facility and Canister Storage Building.