

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 11, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending January 11, 2019

Building 324: Contractor management held an In Progress ALARA Review (IPAR) to discuss an event involving the discovery of contamination on a worker's modesty clothing after doffing his personal protective equipment (PPE). While the workers and radiological control technicians (RCTs) did not note any problems prior to detecting the contamination, the previous day's work had dealt with materials that had contamination that was particularly mobile. The IPAR attendees determined that the most likely source of the contamination was transfer of contamination from outer PPE or from RCTs' gloves to the worker's clothing. They also noted that the area where workers are surveyed after exiting the high contamination area has relatively high background radiation, making detection of small quantities of contamination on PPE difficult. Several work practice improvements were suggested, including moving the survey area closer to the step-off pad where there are lower background readings, increasing the frequency of glove changes for RCTs, and having an observer watch donning and doffing practices to identify additional areas for improvement.

105-KW Basin: The contractor discovered that multiple breakers installed in the 480 VAC motor control centers to service equipment in the basin building are underrated and might not effectively isolate equipment in the event of a short-circuit fault. The contractor is performing an extent of condition review and, so far, has not identified any underrated breakers in their other facilities. They have stopped work that requires changes to the electrical lineup in the affected system and are working to identify actions to resolve the deficiency.

Hanford Advisory Board (HAB): A resident inspector observed a meeting of the HAB River & Plateau/Health, Safety & Environmental Protection Committee. The committee's agenda included status updates for DOE-RL activities at the Hanford Site and the committee's priorities for 2019. Presentations were made by DOE-RL management on the status of the cleanup at the Plutonium Finishing Plant, the transfer of Waste Encapsulation and Storage Facility cesium and strontium capsules into dry-cask storage, the removal of K-Basin sludge to the T-Plant Facility, cleanup at the 324 Building, and emergency preparedness. Of particular interest to the committee members were potential disposition paths for cesium and strontium capsules following transfer to dry casks, and the timeline for demolition and decommissioning of the K-West basin once sludge retrieval is completed. During discussions about emergency preparedness, committee members asked DOE-RL personnel about lessons learned from the water vapor release at the PUREX plant while grouting tunnel 2 (see 10/26/2018 report), and means of better notifying onsite workers who are not in the immediate area of a facility.

Tank Side Cesium Recovery (TSCR): The contractor performed a review of the TSCR 60% design. The 90% design is expected to be ready for review in April 2019.

Tank Farms: The contractor installed a new slurry pump into AX-102. This installation supports retrieval of the tank waste, which is expected to occur this summer.