

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 26, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending April 26, 2019

DNFSB Staff Activity: K. Herrera, the Deputy Technical Director, was onsite to observe the status of Hanford site operations and evaluate Resident Inspector activities. M. Bradisse, K. Deutsch, and R. Quirk met with ORP and Waste Treatment Plant (WTP) contractor personnel to discuss the design of safety significant instrument systems (SSIS) at the WTP LAW Facility. They also walked down the LAW Facility to view existing SSIS installations. D. Brown observed activities associated with the PFP Plant management assessment.

Plutonium Finishing Plant (PFP): The contractor commenced their assessment of the implementation of corrective actions that resulted from the causal analysis they performed after the December 2017 contamination spread event (see 12/22/2017, 7/13/2018, and 4/19/2019 reports). The assessment supports restart of high hazard demolition work, and the assessment team, which is made up of corporate subject matter experts who are not part of the project team, observed a mockup demonstration and tabletop discussions related to the performance of high hazard demolition. They also observed the ongoing performance of low hazard demolition work, which closely mirrors that activities that the demolition crew will use for higher hazard demolition and interviewed individuals associated with the work. Individuals from both DOE RL and DOE headquarters are observing the assessment.

Building 324: The Building 324 hazard review board (HRB) met to review and approve a revised pilot hole drilling package following the unanticipated contamination spread event (see 3/15/2019 report). The most significant changes to the package were the addition of a dust suppression shroud at the base of the drill casing and allowing the addition of water for dust suppression. The HRB noted that airflow requirements had not been established for the negative air machine that provides radiological confinement for the drill rig exhaust. Additionally, review of supporting radiological documents determined that some workers did not meet the bioassay requirements for the air lapel sampler usage specified in the radiological work permit (RWP). The HRB conditionally approved the changes pending correction of the identified deficiencies.

100K Area Basins: 105KW personnel held an in-progress ALARA review (IPAR) following the violation of a contamination void limit during maintenance activities in the spent fuel basin area of the facility. The work package included entry into a contamination area (CA) and the partial entry into a high contamination area (HCA). Both the radiological control technician (RCT) and field work supervisor did not recognize that a routine swipe performed in the CA near the boundary between the HCA and CA had voided the task's RWP because they were performing a task inside an HCA and the survey level was below the HCA void limit. Workers identified the violation of the RWP after exiting the CA. Personnel at the IPAR identified potential improvements to routine surveys of the basin area where water dripping from tools may cause local areas of high contamination, as well as improved discussion of HCA boundaries for partial-entry activities in the basin during pre-job activities.