

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 15, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending March 15, 2019

DNFSB Staff Activity: M. Bradisse was onsite to support Resident Inspector oversight activities.

Hanford Site: Adverse weather interrupted site activities on March 12 (see 2/8/19 and 2/15/19 reports), with snow and sleet causing a cancellation of day shift activities sitewide.

PUREX Tunnel 2: A Resident Inspector observed an all-hands pre-job for restart of grouting operations on March 11. The project has not placed grout in approximately five weeks due to extreme cold temperatures and snow, so project management emphasized working deliberately and not attempting to make up lost time. Prep work was performed later that day and grouting resumed on March 13.

Building 324: On March 13, during the first pilot hole drilling operation adjacent to B-Cell, RCTs detected contamination outside of the drilling equipment's encasement. Contamination outside of drilling equipment was not anticipated by the project, but the room was posted as a High Contamination Area/Airborne Radiation Area and workers were wearing double sets of anti-Cs and Powered Air Purifying Respirators as a precaution. While no void limits were exceeded, RCTs directed drilling personnel to pause work, and all personnel successfully exited the room without spread of contamination.

On March 14, a resident inspector observed an in-progress ALARA review (IPAR) to gather facts about the event and potential causes of the contamination spread outside the drilling equipment. The IPAR concluded that adequate controls are in place to protect workers in the facility during recovery activities, but further pilot hole drilling is paused until the leak source is identified and the work package is modified to improve contamination control. A resident inspector also attended the pre-job held for recovery activities that included surveys and decontamination of the room and drilling equipment and troubleshooting of the drilling rig's confinement systems.

Tank Farms: The contractor plant review committee (PRC) reviewed two amendments to the Tank Farm DSA and TSRs. The first amendment removed the applicability of controls related to ventilation flow for AY-102. The PRC had considered this amendment previously (see 11/16/18 and 1/25/19 reports), and had conditionally approved the amendment pending questions related to the waste parameters used to determine hydrogen generation rate. After reviewing and subsequently revising the relevant calculations, it was determined that those waste parameters were conservative. The PRC approved the revised amendment. The second amendment supported additional controls related to the test bed initiative (TBI). Specifically, the amendment added a safety significant pressure relief valve upstream of the TBI feed pump, and administrative controls on the TBI purge system. These controls protect against waste leaks into occupied areas. The PRC approved the amendment.