

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 12, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending July 12, 2019

DNFSB Staff Visit: D. Brown was onsite for respirator training and resident inspector augmentation.

Building 324: Following the recent meetings to discuss contamination events in Building 324 (see 6/28/19 and 7/5/19 reports), a resident inspector met with project personnel to discuss proposed modifications to the work package and equipment used for pilot hole drilling. The primary changes to engineered controls include improved seals around the drilling equipment and elimination of a joint in the drill casing that may disrupt the seal on one of the drill rig's gaskets, and improvements to the drill rig's ventilation system. In addition, the project plans to include administrative controls such as placing adhesive paper and wet rags for additional dust collection, increase limits on the use of water injection during drilling, require personnel to wear an impermeable set of outer coveralls, and improvements to doffing and decontamination practices. The other significant change is to post the room as a high radiation area during drilling operations. This change does not increase the current void limits for personnel exposure, but is meant to address the possibility of encountering soil with higher concentrations of gamma-emitting soil. Changes to the work package and radiological work package are currently under review by the project's Hazard Review Board.

222S Laboratory: DOE-ORP held a kickoff of their triennial quality assurance audit of the facility's contractor, which included a facility walkdown, discussions about the current facility mission, and discussions about the audit's scope. The walkdown covered both the main laboratory areas, the facility's hot cells, as well as ongoing renovations of laboratory spaces and explaining laboratory testing processes. Of note, the 222S Laboratory contractor does not have complete ownership of all laboratory functions; for example, the facility's tracking software for lab samples is used by the laboratory contractor, but procured and maintained by the tank farms contractor. As such, the scope of the audit will be tailored accordingly. The resident inspector noted that laboratory personnel were knowledgeable about laboratory processes and contractual interfaces with the tank farms.

During the walkdown, facility personnel pointed out the location of the fire from a thermal desorption unit on May 30, 2019. The likely cause of the fire was water dripping onto the unit from a wall-mounted air conditioner. The fire was located in a radiological buffer area and did not impact any radiological materials, but has restricted access to the room until damage to equipment is repaired.

Tank Farms: A resident inspector observed a Joint Test Working Group meeting to review the operational acceptance test procedure for AX-102 tank retrieval. Most comments were relatively minor, but the participants showed a strong knowledge of the system processes and discussed topics such as the ordering of procedure steps like quality assurance holds. Retrievals are expected to begin in August of this year.