

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 2, 2023

**TO:** Katherine Herrera, Acting Technical Director  
**FROM:** B. Caleca, P. Fox, N. Huntington, and P. Meyer, Resident Inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending June 2, 2023

**Hanford Site:** DNFSB headquarters staff held a teleconference with contractor and DOE personnel to discuss the maintenance of electrical cabling at the Hanford Site. This supports a staff effort to document the state of practice across the DOE complex and discuss applicability of the new standard, NFPA 70B, *Standard for Electrical Equipment Maintenance*.

**Central Waste Complex:** Over the holiday weekend, a patrol officer observed water gushing from the side of building 2402-WJ, which is a radiological area containing over-packed waste drums. Upon investigation, the water was found to be coming from the fire sprinkler riser piping. The control valve was shut after an estimated 56,000 gallons of water had been discharged. Facility personnel were notified and responded promptly to the incident. The interior of the building was found to have approximately six inches of standing water resulting in the waste containers, which sit on pallets, being submerged by approximately two inches. Surveys were performed and no contamination was detected. The facility entered the appropriate limiting condition of operation (LCO) for an inoperable fire suppression system. Facility personnel completed pumping the water out of the building and performed initial inspections to identify the precise location and cause of the break. Additionally, the facility began relocating the waste containers to another building so that the LCO can be exited, allowing repairs to begin.

**Building 324:** During preparations to make an airlock entry, an operator was unable to close the D-Cell shield door. A resident inspector attended a critique and noted that while cycling the door seals is a common practice by operators to address ventilation balance issues, it's not reflected in the procedures for door operation. In addition, senior management self-identified that after the D-Cell crane door failed earlier this year, the shield door should have been taken out of service as well (see 3/17/2023 report). When the D-Cell door was cycled, parts of the damaged D-Cell crane door mechanism shifted and became wedged in the shield door's path. Airlock entries are paused while the contractor works to develop a repair strategy.

**Tank Side Cesium Removal (TSCR):** The Plant Review Committee met to discuss the unreviewed safety question determination for the issues associated with the time to the lower flammability limit (LFL) in the TSCR ion-exchange column and the evaluated accident events (see 5/26/2023 report). The LCO flow rate ensures that the hydrogen concentration remains below one percent. Utilizing this concentration results in a shorter time to LFL. It was determined that this constitutes an unreviewed safety question.

**Tank Farms:** A resident inspector observed a board, led by the DOE deputy manager, conduct the final oral examination of a Facility Representative candidate who will be assigned to oversee tank farm activities. The examination is the last step in their qualification training and was focused on knowledge of tank farm operations and safety systems, their oversight roles and responsibilities, and the application of DOE requirements to onsite work. The examination was rigorous, and the board voted to pass the candidate.