DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 21, 2025

TO: Technical Director
FROM: Hanford Site Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending March 21, 2025

242-A Evaporator: The DOE Start-up Authorization Authority determined that H2C has closed all pre-start findings from DOE's recent 242-A evaporator readiness assessment (see 2/7/2025 report) and authorized restart of the facility in accordance with the approved startup plan. H2C is completing startup prerequisites and intends to start the evaporator to initiate the first waste reduction campaign since 2019, when the 242-A evaporator was shut down to support transfer line replacement and other necessary maintenance.

Low Activity Waste (LAW) Facility: A resident inspector observed the replacement of three bubblers in the LAW melter gallery using radiological controls to assess proficiency of the workforce. Due to issues with the consumable changeout boxes (CCBs), an engineered control designed for replacement of equipment, such as bubblers that pose physical, chemical, and radiological hazards, the preferred engineered controls were not available. Instead, workers used a new process that operations stated was a temporary measure, which involved heat-resistant glass fiber bags to cover the bubblers and heat-resistant personal protective equipment for workers performing the replacement manually. The resident inspector noted that radiological controls were incomplete and not well integrated with competing hazards such as high temperatures and hoisting and rigging of the bubbler. For example, shop vacs were used to collect glass fines and refractory dust that will become contaminated once the facility is processing waste, instead of purpose-built high-efficiency particulate air filtered vacuums designed for radiological work. Additionally, crumbling refractory falling from the spent bubbler could not be surveyed until sufficiently cooled, but work could not be paused while the hot bubbler remained suspended over the melter deck. The resident inspector noted that use of the CCBs would address many of the hazards associated with the job as it was performed. In addition, the resident inspector observed that control of potential contamination was impaired by constrained space, poor housekeeping, and poor doffing of protective clothing at the stepoff pad. Radiological control personnel also acknowledged that survey and release plans for some tools used on the job were not yet available and could not be demonstrated. The resident inspector shared their observations with the radiological control supervisor and person-in-charge for the job and noted that the post-job discussion was open and considered workability concerns raised by the crew.

DNFSB Staff Activity: A cognizant engineer was onsite for periodic requalification training and to assist with routine oversight activities. Members of a staff review team met with WTCC and DOE engineering personnel to discuss actions WTCC had taken to improve implementation of the LAW Facility's temporary modification processes. The actions were taken in response to the team's observations from a recent review of the facility's configuration management program.

Central Waste Complex: While relocating waste containers in 2403-WA, workers discovered contaminated corrosion product on the floor beneath a pallet. Whole-body and boundary surveys confirmed no contamination spread. The container was successfully overpacked.