

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 16, 2025

TO: Technical Director
FROM: Hanford Site Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending May 16, 2025

DNFSB Staff Activity: The DNFSB Associate Technical Director for Nuclear Materials Processing and Stabilization, along with two cognizant engineers were onsite. They met with DOE and contractor leadership, visited site facilities, and observed ongoing work activities.

Low-Activity Waste (LAW) Facility: DOE recently approved safety basis changes at both Tank Farms and the LAW Facility that are intended to strengthen the hazard controls at the interface between the two facilities (see 4/4/2025 report). The changes protect workers in tank valve pits from sprays that might occur if hazardous material is misrouted from the LAW Facility through the transfer line that links AP Tank Farm to the LAW Facility. The controls, which were identified and developed during a joint Tank Farm and LAW Facility nuclear safety hazard analysis, require the LAW Facility to either isolate or disable pumps that could move hazardous material through the transfer line prior to lifting covers off the affected pits in the AP Tank Farm. During walkdowns performed for implementation of safety basis hazard controls, Tank Farm personnel discovered the joint hazard analysis had failed to identify four pumps that could send hazardous material through the transfer line. Tank Farms management subsequently determined that the new information represented an unreviewed safety question, requiring a change to the safety basis to protect the workers. However, although the hazard originates in the LAW Facility and can potentially injure collocated workers, LAW Facility management determined that no safety basis change is necessary. A resident inspector met with LAW Facility managers and subject matter experts to understand the basis for their negative determination, how the four pumps were missed during the joint hazard analysis, and whether LAW Facility procedures adequately address interface hazard identification and the need for compensatory measures under these circumstances. Facility management agreed to further review the circumstances and their procedures and follow up with additional information.

324 Building: In 2022, DOE paused CHPRC efforts to retrieve highly contaminated soil from beneath the 324 Building when the contractor discovered that the contamination plume was larger than expected (see 9/2/2022, 6/30/2023, and 8/18/2023 reports). Because of the new information, DOE determined that the existing approach would not result in successful remediation of the plume prior to removal of the building, which was their original plan. DOE and CPCCo have completed a review of alternatives and have worked with the Environmental Protection Agency to identify a preferred alternative that they expect will result in successful retrieval of the contaminated soil, improve safety, and reduce worker exposure to radiation hazards. DOE is soliciting public comment prior to finalizing the decision.

Capsule Storage Area (CSA): A DOE team completed their review of operational readiness for the CSA to receive dry storage casks and concluded that the contractor has adequately demonstrated the readiness of personnel, procedures, programs, and safety controls to support operations. The team identified two post-start findings.