

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 12, 2025

TO: Technical Director
FROM: Hanford Site Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending September 12, 2025

Low-Activity Waste (LAW) Facility: Facility personnel completed the first environmental performance demonstration test (EPDT) for one of the LAW melters. Once all required EPDT runs are complete, treated Hanford tank waste can be transferred to the facility to be vitrified.

A non-radioactive Glass Former Reagent (GFR) Slurry is delivered to the LAW facility by tanker truck, with excess slurry drained into a poly tote outside the facility. During a GFR slurry offload, the tote was pressurized, causing the auto-venting pressure relief cap to rupture, releasing slurry in the immediate area. There were no injuries to workers. A resident inspector observed the fact finding and found it was well conducted. This procedure is essentially the same as the procedure the facility uses to receive waste simulant. Last month, a pressure transient forcibly dislodged an unvented tote cap during simulant receipt. At the meeting, participants verified that this event occurred at the same step in the procedure as the previous event (see 8/15/2025 report). The corrective actions for the previous event implemented the use of the auto-venting pressure relief cap, created a slurry transfer qualification for facility personnel, and updated the simulant delivery procedure. The resident inspector notes that the pressure relief cap implemented as a corrective action, while operable, was not adequate for the pressure transients this evolution can create. Additionally, the GFR slurry procedures had not been updated despite having the same weaknesses as the simulant feed procedure. While this evolution had previously been conducted successfully, workers noted the tanker truck drivers had not received additional training, and that the timing between a driver securing the pump and facility workers securing the transfer valve was difficult to coordinate as implemented in the procedure.

Tank Farms: During preparations to transfer process condensate from the 242-A Evaporator Facility to the Liquid Effluent Retention Facility basins, personnel identified that the transfer could have been performed before all prerequisites by both facilities, due to disconnects between the transferring and receiving facility procedures and process. 242-A personnel held a fact-finding, and contractor personnel are working to revise the procedures and processes to formalize future transfers.

Waste Encapsulation Storage Facility: CPCCo and subcontractor personnel successfully demonstrated tack and circumferential welding of a stand-in for a dry cask storage lid for contractor and DOE readiness team members. This was the last field activity required to complete the contractor Readiness Assessment (RA) for the W-135 Project after recovery from damage to the automated welding system during the first attempt to weld (see 8/29/2025 report). During this evolution, operations and welder subcontractors performed cleaning of the weld joint, recovered from a blown fuse, continued making improvements to the procedure, and successfully demonstrated how the project would respond to a weld that failed their visual inspection criteria. Once the contractor RA team has completed its documentation and the facility has addressed any findings, DOE personnel will perform their assessment.