

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 22, 2025

TO: Technical Director
FROM: Hanford Site Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending August 22, 2025

DNFSB Staff Activity: The acting Associate Technical Director for Field Operations was on site to evaluate resident inspector performance per agency directives. A DNFSB resident inspector from LANL was also onsite to benchmark resident inspector practices and methods.

Tank Farms: H2C engineers discovered a previously unidentified failure mode in control systems associated with tank pit heaters. The safety-significant heaters prevent freezing of retrieval system components during cold weather operations. However, the heaters can also cause overtemperature conditions in the tank pits, which may damage retrieval piping and components. The new failure mode can result in undetected actuation of all tank pit heaters, potentially causing the overtemperature condition. H2C management subsequently determined that this condition represents a Potential Inadequacy in the Safety Analysis.

Central Waste Complex: The resident inspectors met with CPCCo managers to discuss recent discoveries of degraded safety-significant drums (see 5/23/2025 and 7/25/2025 reports). There was consensus that the primary driver of the recent trend is the age of the containers and the nature of the contained waste. Consequently, the most effective method for addressing the problem is permanent disposal of the waste. CPCCo management discussed an ongoing initiative to accelerate the eventual transfer of waste containers to the Waste Isolation Pilot Plant to support that goal. They also discussed their intent to explore surveillance methods that might improve their ability to detect degrading containers and mitigate the risk associated with interim storage. There was also consensus that identifying common factors among the failures might help identify drums that CPCCo could proactively overpack or repackage to prevent further instances of inoperable containers. Lastly, the CPCCo Radiological Controls (RadCon) manager discussed the RadCon measures used for managing and handling the drums. CPCCo management believes the current controls are sufficient to adequately protect workers during surveillance and management of the waste containers. The resident inspectors are evaluating the described approach.

Low-Activity Waste (LAW) Facility: To replace facility equipment, WTCC personnel removed a roof access panel by crane. This critical lift was complicated by the added load of the facility's ventilation system pulling a negative differential pressure on the panel and the number of interferences that needed to be disconnected or removed prior to the lift. During the lift, an HFO facility representative observed a rigger reaching underneath the suspended panel to resolve an interference, which is an unsafe condition. A resident inspector observed the subsequent fact-finding meeting and noted that there was disagreement regarding the facts of the event among participants in the meeting. Delayed recognition of the unsafe act and notification to operations personnel by observers and participants resulted in the meeting not being held until the next day, impacting participation and the quality of the discussion. Additional investigation is necessary to resolve the disagreements.