

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 4, 2025

TO: Technical Director
FROM: Hanford Site Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending July 4, 2025

Central Waste Complex (CWC): While relocating containers in a waste storage building, workers discovered a corroded drum with a hole in the bottom surface. The workers responded correctly, and the drum was overpacked the following day to restore confinement. As noted in previous reports (e.g., 6/13/2025, 6/6/2025, and 5/23/2025), CWC personnel have discovered a significant number of inoperable, safety-significant waste drums while replacing pallets and relocating containers to reduce facility fire hazards. Critiques are held after each discovery to collect facts, identify potential causes, and ensure the implementation of compensatory measures. A resident inspector attended the critique for this event. The discussion focused on the response to the event, which went well. However, there was limited discussion regarding potential causes for the drum failure, or actions needed to get the failure rate under control. Although the resident inspector acknowledges that the drum failure discovery rate has increased due to the increase in drum movements, the drums are expected to confine radioactive contamination under defined conditions. The recent discoveries indicate that there are potentially many drums in the inventory that have failed or are degraded that cannot perform that safety function but have not been identified using the surveillance process. The contractor has not determined the extent of this condition. This is a safety issue. The resident inspector discussed his concerns with the DOE facility representative.

Tank Farms: Resident inspectors observed the kickoff meeting for the tank waste operations contractor's Safety Basis Integration Team (SBIT). The team will support the development of a DOE STD 3009-2014-compliant safety basis for the Tank Farms. This effort involves updating the hazard analysis for the Tank Farms and adding risk binning for control selection, which may identify existing systems that require reclassification as safety controls. A third-party contractor has been working on this effort for some time, but as their efforts have matured, the SBIT will allow the integrated tank disposition contractor to provide feedback and guidance where needed. The contractor expects to complete this effort by the end of FY26.

Resident inspectors met with contractor personnel to discuss their ongoing efforts to address weaknesses in the H2C Unreviewed Safety Question (USQ) process. HFO personnel and the resident inspectors have been raising concerns regarding the effectiveness of Plant Review Committee (PRC) meetings held to review Potential Inadequacies in the Safety Analysis (PISA), the timeliness of compensatory action definition and implementation, and the length of time necessary to evaluate the safety of the situations. Contractor personnel shared a presentation used to support a workshop held with HFO. The presentation identified process areas that were not in compliance with DOE requirements or guidance. They also discussed the progress of efforts to improve PRC and USQ process procedures. The changes are intended to streamline PISA reviews to reduce the time for developing and implementing compensatory actions. The resident inspectors shared past Board recommendations and staff reports that evaluated USQ processes across the DOE complex.