DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 29, 2025

TO: Technical Director

FROM: Hanford Site Resident Inspectors

SUBJECT: Hanford Activity Report for the Week Ending August 29, 2025

DNFSB Staff Activity: A DNFSB cognizant engineer was on site to provide resident inspector augmentation.

Hanford Site: The DOE Environmental Management Chief of Nuclear Safety was on site to hold meetings with HFO and contractor personnel on several nuclear safety activities, including the Contact-Handled Waste Processing and Advanced Modular Pretreatment System projects, chemical and nuclear safety topics for the Direct Feed High-Level Waste (HLW) facility project, and open board commitments for the 242-A evaporator and HLW facility.

Low-Activity Waste (LAW) Facility: As part of its Chemical Safety Management Program (CSMP), the LAW facility has combustible load limits including combustible material exclusion zones to reduce the risk of facility fires. Monthly surveillance for combustibles by facility operations personnel are implemented to prevent unauthorized accumulations of combustibles. With the large volume of construction and maintenance activities still ongoing to support repairs and modifications to multiple facility systems prior to hot operations, the resident inspector identified violations of the CSMP control with large volumes of staged combustibles, including trash, makeshift laydown areas, and ad hoc shop spaces in exclusion zones without posted permits. The resident inspector notes that individual instances of violations were resolved in a timely fashion by WTCC operations personnel, but new violations have recurred within days, as noted by the resident inspector, HFO fire protection personnel, and the DNFSB cognizant engineer. The resident inspector shared their observations with WTCC and HFO management, emphasizing the need to re-examine the current CSMP surveillance interval and effectiveness.

Waste Encapsulation Storage Facility: Contractor Readiness Assessment (CRA) personnel continued their observation of readiness activities for the W-135 Project to move cesium and strontium capsules into safer, passively-cooled dry cask storage. The resident inspector observed key activities that will be performed only once prior to completing readiness, with DOE readiness assessment personnel and the CRA team in attendance. These include an emergency preparedness drill simulating a fire in the G hot cell with injured workers and a cesium capsule inside the cell, and demonstration of the automated welding system (AWS). Demonstration of the AWS requires the installation of a coupon with a spacer prior to moving the AWS in position over the dry cask that is in the WESF truck port. During demonstration of welding on the coupon, however, the AWS contacted the annular weld shield installed around the coupon, damaging the AWS and weld shield. Facility personnel discovered a step in the cask assembly procedure had been missed earlier that week, leading to the incorrect configuration for welding. Field observations were paused to allow the facility time to inspect the AWS for damage and to move the cask out of the facility to perform necessary recovery actions. The CRA will return to observe welding observations prior to completing its assessment.