

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 5, 2025

TO: Technical Director
FROM: Hanford Site Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending September 5, 2025

Hanford Site: DOE has selected Ray Geimer, who was previously the General Manager for Hanford Laboratory Management and Integration, LLC, to serve as the permanent Hanford Field Office (HFO) Manager. He will assume that position on September 7, 2025. Brian Harkins, who is the permanent Assistant Manager for Mission Support and was filling in as the HFO Acting Manager, will continue to serve as the Acting Deputy Manager.

A resident inspector observed HFO personnel conduct the final oral examination of a Facility Representative candidate who will be assigned to oversee the LAW Facility. The Board's examination was rigorous, and the Board voted to pass the candidate.

Low-Activity Waste (LAW) Facility: BNI nuclear safety completed an evaluation of the safety of the situation (ESS) related to the discovery of acidic condensate in the off-gas system carbon bed (see 06/27/2025 report). The ESS concludes that, in most cases, the condition is only a new initiator for existing events in the hazard analysis. However, there is uncertainty regarding the acid's effect on the sulfur that is impregnated in the carbon bed media to help capture mercury that might be in the off-gas. Any significant effect could change the mercury accumulation distribution within the "lead" and "lag" beds. The distribution underlies a key safety basis assumption used for evaluating a mercury release resulting from an accelerated fire of mercury loaded carbon bed media. Specifically, the effect of the acidic condensate could lead to higher-than-expected mercury loading on the "lag bed" over a period of multiple years resulting in unacceptably high off-site mercury dose consequences should the event occur without earlier replacement of the media. Because of the uncertainty, more work is needed to fully understand the potential effect the acid has on the sulfur impregnation. Consequently, BNI requested a justification for continued operations (JCO) from DOE. Implementation of the JCO would allow BNI to introduce mercury-bearing feed into the facility to support operations while imposing additional restrictions on the length of time the "lag bed" can remain in service before replacing the media. The DOE safety basis approval authority subsequently approved the ESS and JCO.

Tank Farms: H2C held a field-limited emergency preparedness drill simulating a waste leak from a transfer line, with a subsequent injury and contamination of a worker. Drill controllers noted multiple weaknesses in radiological control, including improper survey speeds and boundary controls. The resident inspector notes that the scenario had limited opportunities for field players to demonstrate their performance due to the lack of firefighters to doff and the contaminated worker being out of play before the arrival of radiological control technicians.

Test Bed Initiative (TBI): An H2C work crew moved the ion-exchange column (IXC) used for the TBI (see 5/2/2025 report) from the SY Tank Farm to the Tank Side Cesium Removal expended-IXC storage pad. The shielded component will remain there until DOE determines and implements a final disposition for the unit.