

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 25, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: B. Caleca, P. Fox, and P. Meyer, Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending October 25, 2024

Hanford Site: Personnel from the Hanford Site Emergency Response and Preparedness (ER&P) organization, with support from other site contractor ER&P organizations, conducted a site limited exercise to validate the effectiveness of the Hanford Emergency Response Organization. The scenario simulated a radiological release resulting from the detonation of an explosive device by a disgruntled worker near the Waste Encapsulation and Storage Facility truck port. The detonation fatally injured two individuals and spread contamination to a third individual who arrived at the scene to assist. Resident inspectors observed the exercise from the Emergency Operations Center and the event scene. The exercise team is collecting and evaluating information that was obtained during the exercise to determine if objectives were met.

High-Level Waste (HLW) Facility: HFO approved the first revision of the HLW Safety Design Strategy (SDS). Among other changes, this revision adds HLW sample analysis operations to the Laboratory Facility mission scope and the use of a Chemical Safety Management Program for control of chemical hazards to the SDS. As part of the approval, DOE directed BNI to add the potential impacts resulting from the use of an alternate dispersion analysis method (see 3/15/2024 and 3/22/2024 reports) to the project risk and opportunity list.

105-K West Basin: Workers were sprayed with contaminated liquid while disconnecting a hose previously used to dewater the basin. One individual was sprayed on the face and required decontamination. Workers had previously drained and blown down the system with air under a different work package. Because of the previous work, planners and workers assumed the systems were depressurized and only a small amount of water would drain out when the system was opened. Consequently, they selected work methods and hazard controls that did not require workers to wear face shields or respiratory protection equipment. A resident inspector attended a meeting held to gather information related to the event. During the meeting, attendees stated this was not the first time a spray occurred while disconnecting dewatering equipment. Management is highly engaged and is considering several corrective actions, including establishing a standing order for all deactivation and decommissioning activities that requires planners and workers to assume systems are pressurized when being breached and to have appropriate controls, such as splash guards and face shields, in place when performing this type of work. Additionally, management plans to review all new work involving opening vessels or connections to ensure assumed system conditions based on previous work are verified prior to work performance.

Low-Activity Waste (LAW) Facility: An independent contractor management team commenced an assessment to validate the readiness of the LAW Facility equipment, personnel, and procedures to start the cold commissioning phase of the project (see 10/18/2024 report). The team's activities during the first week focused on interviewing plant management, operating, and support personnel, and observing plant operations and drills. A DOE team will be onsite next week to validate HFO readiness to provide oversight of cold commissioning activities.