DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 10, 2025

TO: R. T. Davis, Acting Technical Director

FROM: B. Caleca, P. Fox, and P. Meyer, Resident Inspectors

SUBJECT: Hanford Activity Report for the Week Ending January 10, 2025

Low-Activity Waste (LAW) Facility: The Safety Basis Approval Authority issued revision 6a of the LAW Facility Documented Safety Analysis (DSA) and revision 5a of the LAW Facility Technical Safety Requirements (TSR). The revision of the DSA and TSR adds an administrative control to define actions within the LAW Facility to protect tank farm workers from waste sprays and misroutes. U.S. Department of Energy (DOE) made this change to address concerns communicated by the Board to DOE in a letter dated February 28, 2023. During final review of the changes (see 12/13/2024 report), the Senior Review Board noted that the change did not fully address one of the commitments contained in DOE's response to the Board because it did not include identification numbers for blind flanges that, in some circumstances, could be used to provide isolation between the facilities. Under BNI's procedures, they only identify certain flange types in their pipe and instrument drawings. Consequently, they had not identified or assigned identification numbers to the flanges that would be used for this situation. To resolve the discrepancy without requiring multiple changes to company procedures and facility drawings, DOE added a condition of approval that directs BNI to identify the location of isolation points and revise the relevant sections of the DSA to precisely describe the location and types of flanges used. The resident inspectors and staff subject matter experts consider this approach acceptable for this application. BNI must complete the required change at the next DSA update or prior to the use of these blind flanges to provide isolation between the facilities.

A resident inspector observed a walkdown by contractor operations and radiological control personnel of the planned permanent radiological postings for the LAW facility. These do not include task-specific postings required for activities such as maintenance of contaminated systems. The walkdown allowed facility personnel to verify that the facility configuration supported the planned postings, which will be used as a facility-wide "proficiency" for LAW personnel prior to the introduction of radiological material to the facility later this year.

Tank Farms: In early November, Tank Farms management reported a TSR violation when operations personnel determined that required administrative locks were not installed on two pumps. The locks protect workers from tank waste sprays by preventing pump operation unless the system is correctly configured. A causal analysis team reviewing the event reported the event resulted from an inadequate turnover of responsibility for a work activity between two individuals. Consequently, the individual responsible for ensuring the locks were installed missed the step in the procedure requiring their installation. The team also noted short staffing contributed to the responsible individual being unable to adequately focus attention on completing assigned tasks. The team proposed corrective actions focus on improving the use of human performance improvement tools and reinforcing management expectations related to task turnover and place-keeping in continuous use procedures. They also recommended addressing the staffing shortage.