

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 17, 2023

**TO:** Katherine R. Herrera, Acting Technical Director  
**FROM:** B. Caleca, P. Fox, N. Huntington, and P. Meyer, Resident Inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending February 17, 2023

**Solid Waste Operations Complex (SWOC):** Project management completed an Unreviewed Safety Question (USQ) Determination and confirmed that a USQ exists (see 2/10/2023 report). Work to restore fire suppression system operability continues by performing extensive internal inspections or full system flushes.

**Waste Encapsulation and Storage Facility (WESF):** A loud noise was heard and then smoke was observed billowing from a heater control panel in the HVAC room at WESF. The building emergency director evacuated all personnel, ensured the breaker was tripped, and obtained 100% accountability of personnel. The Hanford Fire Department responded and verified the fire was out. During a critique of the event, it was noted that multiple fuses inside the panel had blown. Additionally, it was noted that there is a longstanding issue with this specific heater control panel involving blown fuses, burnt contactors, and discolored wires. The facility is installing portable heating equipment to prevent the freezing of fire protection system piping given anticipated low temperatures over the next week. The facility will then begin efforts to determine the extent of condition and address longstanding issues with the heating system control.

**324 Building:** The resident inspectors observed a work team conduct an airlock entry. The team's goal was to install transport tracks and move a large waste box into the room to support removal of excess equipment. Facility personnel have not performed this activity in over three years and less than half the team had been involved in the previous event. Although the work was terminated before achieving its goal because of track fit up problems, the resident inspectors noted exceptional teamwork and that the work was performed safely and efficiently, observing only minor conduct of operations and radiological control deficiencies. The resident inspectors also noted that the field work supervisor led a comprehensive pre-job brief that included meaningful participation by members of the team, and that the work in the radiologically controlled areas was effectively managed by supervisory operations and radiological control personnel. Work performed by the team within the high contamination area (HCA) and airlock was controlled and successfully contained contamination within the airlock. Individuals assigned to perform support tasks were attentive and routinely provided effective assistance to the HCA team. The resident inspectors provided their overall observations to the facility manager and discussed their radiological control observations with the field work supervisor.

**Hanford Site Fire Protection:** HMIS management conducted a factfinding meeting related to the inadvertent isolation of a section of the raw water loop in the 200E area (see 2/3/2023 report). In addition to temporarily isolating the water supply to the fire water storage tanks at the Waste Treatment Plant site, the event resulted in a loss of water supply to sprinkler systems in eight WRPS, WTCC, and HMIS facilities and for eighteen fire hydrants in the 200E area. The preliminary investigation and meeting were effective in identifying the sequence of events that resulted in the outage. HMIS management will evaluate the causes and identify necessary corrective actions.