

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 3, 2023

TO: Timothy J. Dwyer, Acting Technical Director
FROM: B. Caleca, P. Fox, N. Huntington, and P. Meyer, Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending November 3, 2023

DNFSB Staff Activity: A. Hutain and R. Csillag were onsite to observe conduct of operations at the Low-Activity Waste Facility.

Hanford Site: As part of their review of HMIS cold weather protection program, two resident inspectors observed a pre-job brief that kicked-off seasonal cold weather surveillances. They also observed operations personal perform required surveillances and equipment checks for the site water system, which provides water to the site fire protection systems. The resident inspectors also discussed the condition of water mains and valves distributing the water across the site. Although the cold weather protection program appears robust, the aging system infrastructure presents a challenge to ensuring reliable delivery of site water.

Staff members met with site EP management representatives to discuss observations from the last site emergency exercise and their review of the after-action report. Most significant issues identified by the staff during their observation of the site exercise were addressed in the report findings and HMIS is addressing them. However, HMIS representatives could not provide assurance that less significant issues, not addressed in the report, are captured in existing performance assurance systems. Ignoring these less significant issues weakens continuous improvement efforts and limits overall gains in site EP response capability.

Tank Farms: During lighting replacement work, electricians in a manlift approached within ten feet of an energized 480-volt overhead line on two occasions, violating electrical safety requirements. On both occasions, electricians performing the work had identified and questioned the hazard but were told that it had been addressed. The issue was again identified before the third work evolution; work was then paused and subsequently suspended. A fact finding determined that the work instructions require a site survey by the Electrical Utilities group prior to work but this survey was not performed on the days in question. While the fact finding obtained appropriate information on the event and determined that the work instructions were not followed, the initial event investigation report key take aways did not address the lack of procedure compliance or the need to pause work if procedures cannot be performed as written.

Waste Encapsulation and Storage Facility (WESF): Facility management conducted a meeting to evaluate their readiness to remove five pipe stubs in the facility's G Hot Cell. Ongoing equipment evaluation in the contractor's mockup determined that these pipe stubs will interfere with equipment operation unless removed. The evaluation was thorough, and the work instructions were approved, with comments. A resident inspector noted that the work package is over-complicated because it includes both characterization and modification work. This resulted in a significant number of "if, then" actions, which make the work instructions difficult to follow. Separate characterization and modification packages would simplify instructions for the modification, making them easier to follow. Despite the difficulty, the work crew, along with their support personnel, clearly demonstrated that they are prepared to do the work.