DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 3, 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 3, 2023

Solid Waste Operations Complex (SWOC): Dry pipe internal inspections of sprinkler fire suppression systems continue at SWOC (see 1/20/2023 report). These sprinkler systems are designated safety-significant since fire is one of the primary safety risks identified and controlled by the Documented Safety Analysis (DSA). Upon finding corrosion products in the system of a second building at the Central Waste Complex (CWC), the contractor declared all the remaining uninspected dry sprinkler systems at SWOC inoperable. Waste operations in the affected fire areas are restricted to those required to obtain access to the systems to perform inspections and any subsequent system flushes determined necessary. Each system will be returned to operability after those actions are complete. To date, three of eight systems inspected at CWC have been found to contain significant corrosion products. The contractor also entered the Potential Inadequacy in the Safety Analysis (PISA) process because the current Technical Safety Requirements did not effectively maintain operability of the safety-significant credited systems. In addition to potentially deficient surveillances, the conditions may also indicate an inappropriate DSA reliance on the fire protection safety management program without adequate definition of key elements. Lastly, there may be deficiencies in the management of fire protection system maintenance at the interface between the SWOC contractor, CPCCo, and the site services contractor, HMIS. DOE is engaged with the contractor to address potential deficiencies.

242-A Evaporator: A fire alarm activated in an office on the administrative side of the evaporator facility. An operator in the facility determined the cause was a small fire and used a fire extinguisher successfully. Initial investigation of the event determined the cause to be a lit candle that ignited combustible material while briefly left unattended. WRPS personnel are currently investigating the fire and auditing WRPS workspaces for similar fire hazards.

Emergency Management: DOE began implementation of DOE O 151.1D, *Comprehensive Emergency Management System*, at Hanford Site on January 31, 2023. The implementation is expected to result in full compliance before July 31, 2023 and fulfills intended action that was communicated to the Board in November 2021. Change 1 to the order will be implemented after the current implementation is complete.

Hanford Site Fire Protection: HMIS personnel inadvertently isolated a section of the 200E raw water loop that provides water to the Waste Treatment Plant fire water system. A similar event occurred in October of 2022 in the 200W area. A causal analysis for the October event determined, among other things, that system configuration was not properly managed. The new event also appears to result from inadequate configuration control. The resident inspector notes that the corrective actions for the October event might have prevented this event but are not complete and represents a case where lengthy cause analysis and corrective action implementation timelines result in lost opportunities to prevent recurrence of events.