

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 12, 2024

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 January 12, 2024

Tank Side Cesium Removal (TSCR): A DOE Senior Review Board met to consider a proposed Safety Evaluation Report (SER) based on the contractor's submitted amendment to the Tank Farms safety basis. This amendment addresses issues identified by the 2021 readiness assessment of the TSCR process: removing recovery plans from the technical safety requirements, reconciling inconsistencies between the safety basis and the fire hazards analysis, and other improvements regarding the TSCR process. The SRB postponed approval of the SER and amendment pending clarification on the operability requirements for ion exchange column vent stacks and technical details of a revised visual inspection of ion exchange columns.

Waste Encapsulation and Storage Facility: Resident inspectors observed a limited emergency preparedness drill, which involved a simulated seismic event resulting in a partial roof collapse of 225B and damage to mobile offices. Although the scenario was challenging, the building emergency director provided safe routes of travel warning of power line hazards, exhibited strong knowledge of the facility, and provided thorough briefs to facility personnel. This is the first simulated seismic event that has been performed since 2019. The goal is to expand this type of scenario to other facilities and potentially affect multiple facilities in one drill scenario.

Purification Extraction (PUREX) Facility: A CPCCo work team, supported by appropriate engineering staff, held a post job review to evaluate the results of the PUREX Facility FY23 annual surveillance. The results indicate that much of the building interior could not be inspected because of unsafe conditions along the inspection routes, such as pools of unknown liquids, insufficient lighting, and electrical hazards. The team believes the liquids resulted from rainwater ingress because of heavy rain. They proposed to perform the next inspection during a drier period and survey their way through the previously blocked areas. They also initiated action to resolve lighting issues. DOE O 430.1C, *Real Property Asset Management*, establishes objectives for the surveillance and maintenance of inactive facilities, which focus on maintaining the safety envelope of the facility and ensuring that contamination is adequately contained, and that potential hazards to workers, the public, and the environment are eliminated or mitigated and controlled. Thorough inspections are needed to accomplish those objectives, especially since the facility will remain in its current status for decades. The resident inspector notes that risk reduction activities in the Reduction Oxidation Facility and 231-Z have been challenging, from a worker safety perspective, because of conditions like those identified in the PUREX facility.

Tank Farms: WRPS convened a corrective action review board (CARB) to evaluate proposed actions related to a failure to implement adequate electrical hazard controls (see 11/03/2023 report). The causal analysis report determined appropriate controls were in the work instructions but had been disregarded by the field work supervisor (FWS) and there is a need for workers to have better knowledge of relevant controls. DOE representatives expressed concerns regarding the other work culture issues that might have contributed to the FWS' actions. The CARB determined that the analysis adequately addressed the event, after comment resolution.