

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 2, 2022

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** B. Caleca, P. Fox, and P. Meyer, Hanford resident inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending September 2, 2022

**DNFSB Staff Activity:** R. Csillag was on site to attend DOE Standard 5506-2021 training and provide oversight support. J. Jarvis was also on site to observe the DOE training.

**Tank Side Cesium Removal (TSCR):** The tank farms operations contractor (TOC) plant review committee (PRC) met to review a draft justification for continued operations (JCO) to support work after declaring a potential inadequacy of the safety analysis for the inability to visually verify valve positions as required by a technical safety requirement (TSR) (see 8/1/2022 report). The JCO would allow TOC personnel to perform blowdowns using a valve lineup specified by a revised technical evaluation, install additional cameras, and repair or replace valve position indicators and valve actuators, but would not allow work that breaches TSCR systems. A DOE observer noted that the blowdown prior to performing maintenance did not appear to fully address concerns about the effectiveness of the existing controls. The PRC voted to approve the draft JCO and submit it to DOE for review and approval.

**Liquid Effluent Retention Facility (LERF):** DOE conditionally approved the new safety basis that supports upgrade of the LERF to a hazard category 3 (HC-3) facility (see 4/8/2022 report). The conditions of approval (COAs) require the TOC to improve documentation of standard industrial hazards in the process hazards analysis and expand safety management program descriptions in the TSR document. The TOC must complete actions to address both COAs prior to the first annual update of the documented safety analysis. DOE also specified an implementation period that allows continued operation of the facility as a below HC-3 facility until DOE provides authorization to restart the facility as a HC-3 facility. Direction for implementation will be provided by separate DOE correspondence.

**222-S Laboratory:** Laboratory personnel terminated a transfer of waste from the laboratory waste collection tank to SY farm when operators received a signal that the transfer pump was leaking. Engineering personnel are working to diagnose the problem, which could be triggered either by condensate in the air supply to the pump or a diaphragm leak. No signs of leakage external to the pump were observed. If required, repair or replacement of the pump will be difficult since the pump is in a high contamination area with poor access and because system configuration does not provide a method to flush the pump prior to work.

**Building 324:** The central plateau contractor is drilling and grouting horizontal boreholes to provide structural stabilization while they remove contaminated soil from below the B hot cell. While completing a borehole, workers unexpectedly encountered high dose material in an area not previously identified. Drilling methods precluded any release of contamination or significant exposure to the workers and the work site remains in a safe and stable condition. The location of the high dose material falls outside of the reach of the remote excavator arms that the contractor will use to retrieve contaminated soil below the B hot cell. The contractor is evaluating the condition and will provide recommendations to DOE regarding its remediation.