

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 30, 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 30, 2022

**Tank Side Cesium Removal (TSCR) Process:** DOE management held a senior review board (SRB) meeting to review the tank operations contractor's (TOC) proposed justification for continued operation (JCO) to perform a new blowdown of the TSCR process system piping and vessels, and a limited scope of activities under maintenance mode (see 9/2/2022 report). The limited scope activities include repair of a non-functional valve position indicator and installation or adjustment of cameras to provide visual coverage of all valve indicators necessary to verify the pressure boundary of the TSCR process blowdown path for future blowdowns, as required by the technical safety requirements (TSRs). The initial blowdown performed under the JCO will not have visual verification of all necessary valves. Consequently, DOE directed TOC personnel to include a compensatory measure to mitigate flammable gas hazards which precludes breaching any process piping prior to performing a TSR compliant blowdown. The SRB recommended approval of the JCO. After a review of additional information provided by contractor nuclear safety personnel and DOE, the resident inspectors agree that the proposed compensatory measure is adequate to support the limited scope activities. The resident inspectors note for future TSCR operations TOC personnel will rely on an uncredited camera system to verify valve positions. These cameras cannot be replaced without making an entry into the enclosure should one fail during TSCR operations.

**Central Waste Complex:** While performing routine weekly surveillances, workers identified a breached 85-gallon overpack drum. The breach appeared to be due to corrosion and was located on the lower sidewall. The facility was put into a safe configuration and a plan to evaluate the container and restore facility operability was initiated. No contamination was found on the drum, pallet, or floor. Visual assessment of the breach indicated the internal 55-gallon drum had shifted close to the overpack wall and may also be breached. A tape patch was applied as a temporary measure. The overpacked drum contained mixed transuranic waste from the Plutonium Finishing Plant and was originally buried in 1976. When retrieved in 2008 it was found to have poor integrity. A non-destructive evaluation performed in 2009 indicated significant liquid was present in the plastic folds inside the drum. The drum had been handled and relocated many times since the original overpack. That handling appears to have resulted in visible signs of minor damage to the outer drum in the vicinity of the breach. The breached drum was successfully overpacked into a 110-gallon drum and the facility was restored to operability.

**Tank Farms:** TOC management held a plant review committee (PRC) meeting to make an unreviewed safety question (USQ) determination of the recent potential inadequacy of the safety analysis on protecting freeze protection assumptions for buried transfer lines (See 9/9/2022 report). The PRC concluded that current guidance and restrictions on excavation around transfer lines does not protect the technical basis used to determine whether transfer lines require additional freeze protection. As a result, the PRC determined a positive USQ exists. Operational restrictions remain in place pending completion of an evaluation of the safety of the situation.