

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 23, 2022

**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 December 23, 2022

**Tank Side Cesium Removal (TSCR):** The DOE Site Deputy Manager, Deputy Assistant Manager for the Tank Farms Project, and the WRPS Chief Engineer briefed the Board on actions DOE will take to ensure that recently repaired Tank Side Cesium Removal ion exchange column connections will perform their safety function over their 50-year design life and show that corrective actions implemented by WRPS are sufficient to address the potential causes of the damage. The briefing also discussed actions to ensure that WRPS appropriately applies NQA-1 for evaluation, disposition, and repair of damaged safety-significant components and addressed the Board's concerns regarding reliance on "skill of the craft" as the sole measure for implementation of a technical safety requirement control to ensure worker safety. The briefing responded to a letter the Board sent to the Secretary of Energy in October of this year.

Tank Operations Contract (TOC) personnel successfully performed a blowdown of the TSCR process system, which will allow maintenance including repair of the leak discovered near a pressure indicating transmitter (see 11/25/2022 report). TOC management expects to continue with the ongoing maintenance outage, including replacement of the TSCR ion exchange columns, and then resume waste processing.

**Hanford Site:** The DOE Chief of Nuclear Safety was onsite to meet with contractor and field office personnel to discuss ongoing high priority nuclear safety work. The resident inspectors observed sessions related to the path forward for the Waste Treatment Plant HLW facility and participated in discussions regarding DOE and contractor actions related to the July 19, 2022, Board letter on the 242-A evaporator's proposed safety strategy.

**Canister Storage Building (CSB):** Two resident inspectors observed the monthly preventative maintenance activity for inspection and service of a generator. This activity was conducted during a period of extreme cold at the Hanford site. During the pre-job brief, the field work supervisor communicated their concern for the extreme conditions and explained the indicators for the onset of hypothermia. Overall, the work team was knowledgeable about the generator and the work being performed, and their performance of the work activity was excellent. The resident inspectors identified a few minor observations regarding work execution and potential procedure improvements that will be communicated to facility management.

**200 Area Interim Storage Area (ISA):** During their review for approval of the Justification for Continued Operation related to cask inventory at the 200 Area ISA (see 8/12/2022 report), DOE identified technical deficiencies in the Documented Safety Analysis. Consequently, as a condition of approval, DOE directed the contractor to evaluate the conditions under the Unreviewed Safety Question (USQ) process following completion of cask transfer activities (see 9/23/2022 report). The contractor Plant Review Committee met this week and confirmed that a positive USQ determination exists related to calculation of damage ratios and safety classification of structures, systems, and components of fuel containers.