

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 27, 2021

**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 August 27, 2021

**Tank Side Cesium Recovery (TSCR) System:** An independent contractor team is performing a readiness assessment of the contractor's readiness to startup the TSCR system (see 8/20/2021 report). The scope of the readiness assessment does not include changes or operations within the AP Tank Farm that support operation of TSCR system, or delivery of TSCR product to the Waste Treatment Plant. The assessment team observed removal and installation of a TSCR ion exchange column and shift team performance of various operational tasks at the TSCR simulator. Other activities included document review and interviews of operations, maintenance, nuclear safety, engineering, and science staff personnel. A DOE team will also perform a separate readiness assessment after the contractor resolves any findings from the ongoing assessment.

**Tank Farms:** The contractor Plant Review Committee (PRC) met to evaluate an amendment to the Documented Safety Analysis that modifies controls associated operation of tank farm systems during months when there is a potential for below freezing temperatures. The changes were necessary to resolve a positive unreviewed safety question that was declared when contractor personnel identified non-conservatism in the analyses that define the freeze time for some tank farm piping and equipment (see 6/5/2020 and 8/21/2020 reports); the amendment also resolves a second positive USQD related to improper installation of insulation on valves used to protect against misroutes and spray leaks (see 6/18/2021 report). The amendment also modifies the flammable gas surveillance frequency for single-shell tank U-109.

**105-KW Basin:** 105-KW personnel continue to retrieve filter media from the basin garnet filter and completed filling a second sludge transportation and storage container (STSC) with the media (see 3/16/2021 report). They subsequently shipped the STSC to T-Plant for storage.

**Aging Structures Stabilization:** The contractor PRC met to review a proposed hazard category downgrade of the 241-Z-361 settling tank. The tank, which is currently classified as a hazard category 2 facility due to its high material-at-risk content, was stabilized by grout injection earlier this year (see 1/22/2021 report). As there are no longer any credible accidents or release mechanisms, the proposed change would disestablish the tank as a facility and treat the stabilized site the same as other known underground contaminated sites at Hanford. The PRC recommended approval of the downgrade.

**Hanford Site:** The site Emergency Planning and Response organization conducted an exercise at the SY Tank farm. The scenario simulated the discovery of a high, flammable gas concentration in the tank headspace of SY-103 by TOC personnel followed by a truck crashing into the SY farm exhausters. A delayed deflagration event required an upgrade of the event classification from an Alert to a Site Area Emergency. Like the last exercise, COVID controls were maintained while minimizing simulations in the field (see 5/21/2021 report).

**Building 324:** Contractor personnel have begun work to remove the drill casing of one of the four pilot holes that were drilled in Room 18 in 2019. Once the casing is removed, personnel will install a metal core and grout the hole to create the first micropile.