

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 21, 2023

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** B. Caleca, P. Fox, N. Huntington, and P. Meyer, Resident Inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending April 21, 2023

**Staff Activity:** R. Eul and S. Seprish were onsite to lead discussions between the staff and DOE, WRPS, and HMIS representatives regarding processes used to manage aging of infrastructure and facilities. R. Csillag was also onsite to participate in the aging management discussions, complete required certifications, and walkdown the 222-S Laboratory Facility.

**T Plant:** The contractor declared a potential inadequacy of the safety analysis (PISA) and made a positive unreviewed safety question determination due to results from a structural evaluation of building 2706-T. The wind speed for which the building meets code occupancy requirements is less than the wind speed assumed in the documented safety analysis. Prior to the declaration of the PISA, the facility was under a timely order that restricted all activities requiring the confinement system; disallowing any intrusive operations, radioactive waste, or non-sealed sources in the building. These controls were determined by facility management to be adequate to maintain the building in a safe configuration until the deficiency is resolved.

**Tank Side Cesium Removal (TSCR):** Resident inspectors met with contractor personnel to discuss the path forward to complete repairs to a leaking connection inside the TSCR process enclosure (see 3/24/2023 report). The contractor evaluated various options including continuing operations with the small leak until the batch was completed, blowing down the process and accepting that contamination might be spread inside the enclosure, or developing a limited entry mode that allows certain maintenance activities with waste inside the system. They elected to blow down the process system and enter maintenance mode. However, nuclear safety personnel continue to work on a proposed safety basis change that implements a limited entry mode.

The plant review committee met to review a proposed change to the TSCR process area access restriction specific administrative control (SAC). The change would allow entries into the process enclosure to perform limited work activities prior to process system blowdown if the system is depressurized, pressure sources are locked out, and flammable gas ignition controls are in place. Operators would visually verify the position of certain valves to ensure the system is depressurized prior to entry. These controls limit the potential for spray leaks or flammable gas explosions while allowing resolution of equipment issues that may occur during operation.

**Hanford Site Fire Protection:** An HMIS team completed a root cause analysis to identify actions necessary to preclude inadvertent isolation of systems that provide firefighting water to site nuclear facilities like those reported in the 2/3/2023 report. The team determined that the inadvertent isolations occurred because procedures for maintaining water distribution system configuration are not well defined, understood, or enforced. To resolve the cause, HMIS will develop or modify HMIS water distribution system procedures for system configuration control. The corrective action should be sufficient if the revised and new procedures fully address practices identified in DOE O 422.1, *Conduct of Operation*, for maintaining equipment and system status, and are adequately implemented by assigned water utility personnel.