

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 16, 2023

TO: Katherine Herrera, Acting Technical Director
FROM: B. Caleca, P. Fox, N. Huntington, and P. Meyer, Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending June 16, 2023

DNFSB Staff Activity: Q. Boney, R. Csillag, Z. Demeke, E. McCullough, and D. Montieth were onsite to support the staff's ongoing review of startup preparations at the Low Activity Waste Facility. This visit focused on establishing a base knowledge of the facility configuration, associated processes, current issues, and the status of startup preparations. Other members of the staff team participated virtually in the informational sessions.

Canister Storage Building (CSB): Resident inspectors observed an emergency preparedness drill at the CSB. The scenario involved a tornado impacting the CSB facility, collapsing part of the structure onto the operations deck floor. Due to the path of the tornado, the incident command post (ICP) was collocated outside with other responders at the event scene. The building emergency director maintained excellent command and control and took appropriate actions to determine if there was a radiological release. The ICP team performed their objectives effectively. However, due to the large number of people in the field, there were communication challenges and some ambiguity concerning radiological control boundaries. Overall, the drill was effective. Post-drill feedback from the drill controllers was forthright and constructive.

Tank Side Cesium Removal (TSCR): The tank operations contractor resumed processing of tank waste using the TSCR system after resolving safety basis questions, repairing a leaking fitting, and replacing components that did not meet National Fire Protection Association 70B requirements for ignition controls (see 3/24/2023, 4/21/2023, and 5/5/2023 reports). One of the resulting proposed safety basis modifications will implement a new technical safety requirement mode that allows entry into the TSCR process enclosure to perform limited activities without the need for system blowdowns (see 6/9/2023 report). A second proposed change will reduce allowed time for the completion of some technical safety requirement actions, which are based on flammable gas buildup, because of changes to the Documented Safety Analysis initial condition assumptions for the time to the lower flammability limit. Neither change affects routine operation of the TSCR system. However, the first change must be implemented before it can be used to support limited entries and the second must be implemented before the next ion exchange column changeout.

Hanford Site: A resident inspector observed a Plant Review Committee (PRC) meeting that was held to evaluate proposals to downgrade the hazard categorization of two onsite nuclear facilities, as well as an amendment to the B Plant safety basis. The Fast Flux Test Facility has been defueled and in surveillance and maintenance mode for over a decade, and the Plutonium Finishing Plant has been demolished down to the facility's slab (see 1/22/2022 report). In both cases, the contractor has determined that there is little remaining hazard. As a result, they are proposing to change the hazard categorization of both facilities to less than hazard category 3, making it unnecessary to retain the associated facility safety bases. At B Plant, the proposed safety basis change would prevent the addition of material-at-risk to the facility footprint save for transient movements of material to support the removal of waste from the nearby 224B facility. The PRC voted to recommend approval of the three proposals.