

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 26, 2021

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** B. Caleca and P. Fox, Hanford Resident Inspectors  
**SUBJECT:** Hanford Activity Report for the Week Ending March 26, 2021

**DNFSB Staff Activity:** Members of the technical staff met with DOE and Tank Farms Operations Contractor (TOC) representatives to discuss ongoing work to modify the methods used to protect workers from hazards that could occur at the 242-A evaporator because of facility fires or seismic events. The proposed approach, which is dependent on administrative controls, differs from the approach proposed by DOE to the Board in 2014. The earlier approach primarily adopted engineered controls (see 3/13/2020 report). DOE representatives explained the current status of the project and the path they intend to follow to a final decision regarding the proposed modifications. Additional discussion focused on the DOE's basis for considering the administrative control approach. TOC representatives stated that they had performed an evaluation and determined that the previously proposed engineered controls were not feasible. However, they had not formally documented that evaluation. DOE stated that they expected the contractor to provide that information as part of their decision process.

**105-KW Basin:** The contractor completed their assessment of readiness for start of Garnet Filter Media Retrieval activities (see 3/19/2021 report). The team expects to complete their draft report by the middle of next week.

**Building 324:** Contractor personnel began maintenance and housekeeping activities in Room 18 after approval and completion of the specialized radiological training for personnel who work in that room. No contamination issues were encountered during their entries. When maintenance and interference removal is complete, the contractor will resume drilling operations for the micropiles that will be used to stabilize the B Cell structure during soil removal operations.

**High Level Waste (HLW) Facility:** The ORP Senior Review Board (SRB) met to evaluate the latest revision of the HLW Preliminary Documented Safety Analysis (PDSA). SRB members noted that, although the state of the document is consistent with the facility's 40% design status, some processes are still being evaluated. Major changes in this revision include the addition of results from process hazard analyses of the Radioactive Liquid Waste Disposal, Canister Handling, and HLW Melter Offgas Treatment systems and processes. Hazard controls removed in this revision include high gamma radiation interlocks, a vehicle entry specific administrative control, and spent carbon media disposal containers. Added hazard controls include two high temperature interlocks for HLW processes. Although not part of this PDSA, the SRB also discussed possible future changes to HLW facility processes, including whether to have credited mixing devices in HLW vessels to address a Board concern regarding the potential for gas buildup that could lead to hydrogen-related explosion hazards. The proposed Safety Evaluation Report includes a condition of approval to address cases where administrative controls were used without adequate justification. The SRB recommended approval of the PDSA.