

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 21, 2023

TO: Timothy J. Dwyer, Acting Technical Director
FROM: B. Caleca, P. Fox, N. Huntington, and P. Meyer, Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending July 21, 2023

DNFSB Staff Activity: Q. Boney was onsite to observe training. Staff personnel met with CPCCo and DOE representatives to discuss management of aging facilities and systems.

Waste Treatment Plant (WTP): Low Activity Waste (LAW) Facility melter #1 achieved its operating temperature for the first time (see 07/14/2023 report).

The resident inspectors and a visiting staff individual observed two training sessions conducted at the WTP LAW simulator. The first session was process control system introductory training for the current class of commissioning technicians and the second was continuing training for individuals assigned to shift crew B. In both cases, the instructors were prepared, the students were attentive and engaged, and the operator's general application of conduct of operations principles was good. A resident inspector also observed radiological control (radcon) proficiency training at the Laboratory Facility. The trainer was well prepared and encouraged a disciplined approach for operations; the student was engaged and asked pertinent questions. Again, the observations determined that the training was effective. Feedback for each session were provided to the lead trainers for their use. Comments related to Lab Facility radcon procedures were discussed with DOE radcon subject matter experts.

Tank Farms: A resident inspector observed a control decision meeting held by the tank operations contractor (TOC) to select a candidate interim freeze protection control for the evaporator. The interim control is necessary to support planned evaporator campaigns. The selected control will restrict operation of the evaporator during cold weather conditions.

The TOC Plant Review Committee (PRC) met to evaluate a safety basis amendment for the Tank Side Cesium Removal process to ensure removal of flammable gas hazard from ion exchange columns (IXCs). The change alters the language of the Technical Safety Requirements to specify the gauge value for sweep air and directs performance of two blowdowns to preclude flammable gas concentrations above the lower flammability limit (LFL) in the bottom of the IXC. The PRC recommended approval of the amendment.

Solids Waste Operations Complex (SWOC): A resident inspector observed a Senior Review Board (SRB) held by DOE to review the Evaluation of the Safety of the Situation/Justification for Continued Operation (ESS/JCO) related to the adequacy of the control set in the SWOC Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR) to ensure fire suppression system operability (see 2/3/2023 and 2/10/2023 reports). The ESS/JCO proposed new controls including a quarterly riser flow main drain test and a requirement that operability evaluations be performed on all safety-significant fire protection system notices of non-compliance. The contractor also committed to elevating the 5-year internal inspection requirement to a TSR surveillance requirement in the new SWOC DSA. The SRB voted unanimously to recommend approval of the proposed control set.