

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 3, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending July 3, 2020

Building 324: During routine surveys, a radiological control technician (RCT) encountered removable contamination greater than 200 times the void limit of the activity's radiological work permit. Contrary to requirements but with the approval of their supervisor, the RCT decontaminated the area and then completed their surveys. When notified of this decision, management restricted access to the facility and up-posted the affected area to a high contamination area pending entries to determine the contamination's source. They also held an in-progress ALARA review to gather facts and identify corrective actions for the event.

Tank Farms: The Tank Farms Operations Contractor Plant Review Committee (PRC) met to evaluate a recently discovered flaw in the design of the operating mechanism used for gear-actuated waste transfer valves (see 6/26/2020 report). The PRC determined that the flaw represents a potential inadequacy in the safety analysis since it could result in an undetected condition where the valve was not fully shut when required to isolate parts of the waste transfer system to prevent waste leaks or misroutes.

Central Waste Complex (CWC): The contractor drafted its Evaluation of the Safety of the Situation (ESS) responding to the positive unreviewed safety question on material-at-risk values used in the facility's hazard analysis (see 6/19/2020 report). The ESS identifies a number of accidents with increased unmitigated consequences to workers and offsite individuals, but states that the current controls in place adequately mitigate the hazard. Until the ESS is approved, all container handling and movement at the facility remains suspended.

Waste Treatment Plant (WTP): The ORP Senior Review Board evaluated and recommended approval of a substantial revision to the WTP High Level Waste Facility (HLW) Preliminary Documented Safety Analysis. Among other changes, the revision documents significant modifications to the confinement ventilation system and introduces a new strategy to address the potential for hydrogen explosions in the head space of HLW facility process vessels. The safety basis approval authority subsequently approved the revision with one directed change that corrects an error in the recorded erosion/corrosion allowance for auto-sampling system piping.

The Board recently communicated to DOE deficiencies that were discovered during a review of the WTP Low Activity Waste Facility hazard categorization. ORP has forwarded a white paper to the Board's technical staff describing how the contractor intends to address those deficiencies. The paper identifies an approach that can address the deficiencies but the contractor needs to transition the method into a revision of the hazard categorization calculation before the staff can evaluate whether the deficiencies are resolved.

Hanford Site: DOE and contractor management continue to follow federal and state guidance to reduce the transmission of the novel coronavirus disease (COVID-19) (see 6/26/2020 report). RL, ORP, PNSO, and all contractors remain in the first phase of their resumption plans.