

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 10, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca, P. Fox, and P. Meyer, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending June 10, 2022

DNFSB Staff Activity: A Board's staff review team met with Tank Operations contractor (TOC), Waste Treatment Plant contractor, and DOE representatives to discuss the management of the nuclear safety interface between Low-Activity Waste (LAW) facility and tank farm systems, and controls associated with operation of the Tank Side Cesium Removal system.

Waste Treatment Plant (WTP): The LAW facility Plant Management Review Board (PMRB) met to review a system design change with the potential to impact chemical safety hazard controls. Although the meeting was well-managed, the material that supported their review was provided too late to support the meeting, and the PMRB identified technical deficiencies in the information. The PMRB decided to withhold approval and then met later in the week to review a revised technical package which corrected the original deficiencies. At that meeting, they voted to recommend approval of the change package.

Tank Farms: TOC personnel held a Plant Review Committee meeting to review whether a recent potential inadequacy of the safety analysis related to a feed pump replacement in tank AW-102 constituted a positive unreviewed safety question (USQ). The Equipment Identification Number (EIN) for the AW-102 feed pump listed in a Specific Administrative Control (SAC) does not match the EIN for the new pump that was installed. This SAC protects facility workers from waste leaks and direct radiation exposure by controlling access to the evaporator and pump rooms and controlling removal of pump room cover blocks while pumps are operating. Although the facility is still in a shutdown mode and the pumps administratively locked, the EIN discrepancy meets the definition of a discrepant as-found condition. As a result, the PRC approved a positive USQ determination.

A resident inspector observed a drill at Tank Farms simulating an explosive device detonating at a transfer line during a waste transfer, spilling material in the vicinity of AP tank farms, contaminating two individuals, and injuring one. Hanford Fire Department participation was strong, but issues with communication and radiological control previously observed at other onsite drills were evident, and it took almost an hour to doff the firefighters. Despite being prioritized immediately, it took approximately twenty minutes to isolate the transfer pumps.

222-S Laboratory: Laboratory management held an in-progress ALARA review of a clothing contamination event that occurred during work on ventilation filter equipment. Attendees noted that recent work practice changes may have contributed to the event. Maintenance personnel were wearing a partial set of anti-contamination (anti-c) clothing vice a full set, and dry wipes instead of damp wipes were used to wipe down the equipment during its removal from the filter housing. Additionally, because of the use of partial anti-c clothing, the size of the contamination control area was small. Based on the event, the facility radiological controls manager indicated that he would restore previously required anti-c requirements and expand the contamination control area and is evaluating the need for other actions to prevent recurrence.