

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 14, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending May 14, 2021

Liquid Effluent Retention Facility (LERF): The Tank Farms Operations Contractor (TOC) Plant Review Committee (PRC) met to evaluate a new Documented Safety Analysis (DSA) and related Technical Safety Requirement (TSR) document for the LERF. LERF is being upgraded from a radiological facility status to Hazard Category 3 (see 3/20/20 report). The TOC used the safe harbor methodology contained in DOE Standard 1228-2019, *Preparation of Documented Safety Analysis for Hazard Category 3 DOE Nuclear Facilities*, for their development of the DSA. Using the methods and criteria contained in the standard, they determined that the potential for significant radiological consequences for both onsite and offsite receptors is low. Toxicological materials were either screened out or also resulted in low consequence levels. Consequently, the TOC did not consider the threshold met for safety class or safety significant controls. However, the TOC is using an assumption to define the initial conditions for their analysis. As required by the standard, to protect this assumption, they are implementing a specific administrative control that limits unit-liter dose, radiological inventory, toxicological concentration, and pH. The PRC determined that the DSA and TSRs were adequate and recommended submittal of the documents to the DOE safety basis approval authority (SBAA).

Waste Treatment Plant (WTP): The WTP contractor submitted revision 4 of the Low Activity Waste Facility DSA and the associated revision to the TSRs to the DOE SBAA for review and approval. This is an extensive revision that includes all identified changes believed to be necessary to support commissioning of the facility.

Tri-Party Agreement: DOE, the Washington Department of Ecology, and the Environmental Protection Agency held a public meeting to discuss proposed changes to Tri-Party Agreement milestones associated with the retrieving, characterizing, and disposing of mixed low-level waste (MLLW) and transuranic mixed waste (TRUM). The parties to the agreement, who are jointly proposing the change, stated that the revisions are necessary to establish an achievable schedule for safely managing and disposing of the MLLW and TRUM; they further noted that the current schedule is not achievable because of Waste Isolation Pilot Plant (WIPP) scheduling and budget constraints. Under a new milestone, DOE will resume shipments of specified TRUM waste to the WIPP by 2028. DOE stated that most of the specified TRUM waste (99%) would be shipped by 2040. DOE would complete the shipment of the remainder of that TRUM waste, which is remote handled, before 2050, which is a revision to an existing milestone (original date for the milestone was 2030). Comments received from members of the public during the meeting indicated general opposition to the change and a preference for a nearer term deadline.

Building 324: Contractor management held a Hazard Review Board (HRB) to review the latest revision to the room 18 micropile drilling work instructions. The instructions have been revised multiple times to improve contamination control, entry and exit controls, and personal protective equipment since the work instruction was first approved for pilot hole drilling (see 1/25/2019 and 4/26/2019 reports). The latest changes incorporate improved dust suppression equipment and lessons learned from prior contamination events that occurred during drilling activities; the HRB recommended approval of the revised work package.