

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 29, 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 April 29, 2022

DNFSB Staff Activity: A resident inspector met with the Tank Farm Operations Contractor (TOC) and DOE representatives to discuss observations that resulted from a recently completed Board's staff review of actions taken by the TOC to address damaged Tank Side Cesium Removal System Ion Exchange Column threaded connections (see 11/19/2021 report).

Building 324: Facility heating was originally provided by steam from a set of boilers external to the facility that was operated and maintained under a separate contract. Last year, that contract reached expiration. Rather than renewing the contract, DOE chose to place responsibility for heating the affected facilities on the facility operating contractors. Consequently, last fall, project personnel installed portable electric heaters throughout the facility to maintain temperatures during the winter. However, during a period in January, the temporary heating systems were unable to provide enough heat to maintain temperatures above freezing in some areas of the building. The freezing conditions resulted in damage to the wet sprinkler fire suppression system. The fire suppression system is categorized as important to safety in the facility's Basis for Interim Operation (BIO). Because of the cost and difficulty of expected repairs, the contractor's fire protection engineers reviewed alternatives and determined that the most cost effective and practical approach would be to move the facility status from its transitional status under NFPA 241, Safeguarding Construction, Alteration, and Demolition Operations, to a deactivation/demolition status. DOE has agreed with this approach. The contractor has started work to establish required conditions to support the transition. That effort includes removal of combustible material from the facility and relocation of personnel, the shift office, and other support functions out of the facility. The change will also require an amendment to the fire hazard analysis and the BIO. Since the fire suppression system is inoperable, compensatory measures have been implemented and will remain in effect until the transition is complete.

242-A Evaporator: The contractor's Plant Review Committee (PRC) met to review proposed Documented Safety Analysis (DSA) changes that are designed to address potential misroutes to the Evaporator facility from Tank Farm systems. The need for the modifications was identified during the PRC review of a recent DSA amendment that supports use of the new 242-A transfer lines (see 4/22/2022 report). The PRC recommended approval of the changes.

Tank Farms: The TOC held a second Control Decision Meeting to discuss controls for Waste Group B Tanks after DOE rejected the original controls proposed (see 2/18/22 report). In response to comments from DOE, the TOC proposes to add a safety significant flow meter for water additions to support the specific administrative controls previously proposed to make the control strategy more robust. TOC engineers agreed with the new approach, though the details of monitoring flammable gases after tank transfers is still being finalized.

Waste Encapsulation and Storage Facility: The Hazard Review Board (HRB) met to evaluate a work package that will be used to remove two grout ports on the floor of G Cell in preparation for future work activities. The HRB approved the work package with comments.