DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 24, 2021

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 November 26, 2021

Waste Treatment Plant: The contractor's Commissioning Joint Test Group (CJTG) has evaluated the proposed dispositions for deficiencies identified during the loss of offsite power test (see 11/5/2021 report). Testing is issuing an interim report that will state that one of three objectives is "incomplete." The problems noted on the test deficiency reports (TDRs) have been transferred to nonconformance reports (NCRs) allowing closure of the TDRs. The NCRs will be dispositioned by plant engineering. Plant engineers, in consultation with facility management, will determine and accomplish any required retest to close the NCRs. The CJTG will then review the results of the retests to ensure all criteria from the test index are met. The resident inspector notes, based on the observed deficiencies and depending on the extent of retests, closure of individual NCRs may not provide the same level of confidence that systems will operate as expected upon a loss of offsite power as would be provided by reperforming the integrated test.

Tanks Farms: The Tank Operations Contractor has made substantial progress in retrieving salt and sludge waste from single-shell tank AX-103 (see 8/6/2021 report). They currently estimate they have transferred more than 90% of the 110,000 gallons of waste originally contained in the tank to double-shell tank AZ-102. However, as expected, their retrieval of the waste is getting more difficult. Current retrieval efficiency is low and will most likely continue to decrease because of the relatively small amount of waste remaining in the tank.

Building 324: The contractor completed drilling and grouting micropile number eight; which is the third of the twenty-two micropiles required to support the B Cell during contaminated soil retrieval activities. The equipment and work practice modifications implemented by the contractor continue to effectively control radiation doses and minimize contamination in the work area. However, engineering personnel are working on calculations that may allow the project to reduce the total number of micropiles. A reduction in the number of micropiles would help minimize the possibility of contamination spreads and reduce overall worker exposure.

Plutonium Finishing Plant: Contractor personnel surveyed the completed cover cap at the PFP site and verified they have adequately covered the area. They are removing silt fences around the footprint and are down-posting surrounding radiological areas.

Several waste packages containing transuranic (TRU) waste remain in the PFP work control footprint. Under current DOE requirements, the shipment of containers with greater than the Hazard Category 3 threshold for material at risk require either a justification for continued operation or an approved site Transportation Documented Safety Analysis (see 10/15/2021 report). Contractor engineers have submitted a final hazard categorization for one of the TRU waste containers to DOE for approval. Their evaluation demonstrates the container has less than Hazard Category 3 quantities and, therefore, can be shipped without an approved safety basis. Contractor personnel believe they can use this method to ship most of the containers with only a few requiring a formal safety basis.