

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 1, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: B. Caleca, P. Fox, N. Huntington, and P. Meyer, Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending March 1, 2024

Staff Activity: R. Csillag was onsite for periodic evaluation and training, and to augment resident inspector oversight of Waste Treatment and Immobilization Plant (WTP) Direct Feed, Low Activity Waste (DFLAW) startup, WTP High-Level Waste (HLW) Facility design completion, and Hanford Site tank farm major modifications.

Radiochemical Processing Laboratory (RPL): RPL personnel completed an extent of condition review following the discovery of radioactive material in a hot cell that had no entry in the facility's radioactive material tracking system (see 2/9/2024 report); they did not find any other instances of untracked material. While the program had failed to identify this container of remote-handled material for over ten years, the facility's material-at-risk limits were never exceeded. As a result, the facility requested, and the Pacific Northwest Site Office approved downgrading the previously reported technical safety requirement violation to a management concern. The change will not impact the ongoing causal analysis of the event.

Tank Side Cesium Removal (TSCR): WRPS transferred approximately 800,000 gallons of treated low activity waste from double shell tank (DST) AP-106 to DST AP-107, the feed tank for the TSCR process. The contractor will reprocess this waste to remove excess cesium believed to have dissolved in solution from AP-106 tank holdup (see 2/2/2024 report). Based on treated waste samples results and laboratory studies of ion exchange column performance in treating lower cesium concentrations, both DOE and WRPS are confident the reprocessed waste will meet the WTP DFLAW waste acceptance criteria. WRPS expects to complete the reprocessing campaign in four batches, one fewer than the previous campaign.

Department of Energy: The DOE office of Environmental Management Chief of Nuclear Safety (CNS) was onsite to review the status of ongoing Hanford site nuclear safety efforts related to the Advanced Modular Pretreatment System, West Area Risk Mitigation, WTP HLW Facility, and Contact Handled Waste Facility projects. CNS also held sessions on emergent nuclear safety topics including onsite transportation in relation to Board Recommendation 2023-1, *Onsite Transportation Safety*, the use of wood pallets at the Solid Waste Operations Complex for transuranic waste storage, and WTP chemical safety management programs.

Hanford Integrated Tank Disposition Contract (HIDTC): DOE announced that the HIDTC contract was awarded to Hanford Tank Waste Operations & Closure (H2C), a limited liability company made up by BWXT Technical Services Group, Inc., Amentum Environment & Energy, Inc., and Fluor Federal Services, Inc. The contract will cover tank farm operations currently managed under the Hanford Tank Operations Contract, including single-shell tank waste retrieval and closure. Additionally, it covers design, construction, and operation of waste receiving facilities and treatment capabilities, and operation of the WTP after the associated facilities are completed, tested, and turned over for production operations. DOE has not yet announced any details about the contract transition.