DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 18, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: M. Bradisse, B. Caleca and P. Fox, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending September 18, 2020

Hanford Site: Smoke from Western United States wildfires combined with existing weather conditions resulted in poor air quality for most of the week due to hazardous levels of particulate matter. As a result, DOE reduced onsite work, allowing only essential activities Sunday night through Wednesday night. Degrading conditions also resulted in closure on Thursday afternoon after the site was opened for normal work on Thursday morning. The site was reopened again on Friday morning. Activities that could be accomplished remotely via telework continued throughout the closure periods.

DOE announced that Joe Franco, RL Deputy Manager, will leave DOE effective October 10, 2020.

Waste Encapsulation Storage Facility (WESF): The DOE-RL Senior Review Board (SRB) met to evaluate the contractor's proposed preliminary documented safety analysis (PDSA) supporting the new outdoor dry storage strategy for cesium capsules, which are currently in wet storage in the WESF basin. When implemented, the dry cask storage system and outdoor storage pad will be classified as safety-significant controls. The SRB recommended approval.

Tank Farms: The contractor held a series of kickoff meetings to support the upcoming process hazards analysis (PrHA) of the Liquid Effluent Retention Facility (LERF). Several PrHA meetings are scheduled for the coming weeks. These efforts support upcoming work to decontaminate and replace the Basin 44 cover, as well as the eventual upgrade of the facility to hazard category 3 (see report for week ending 3/20/20).

A contractor corrective action review board (CARB) met to review an apparent cause analysis to determine why some universal joints recently failed during component testing (see 6/20/2020 and 7/3/2020 reports). The joints are used in actuators for some waste transfer system isolation valves that are expected to prevent misroutes that could result in tank waste spills or sprays. The analysis determined that the failures resulted from flaws in the universal joint component selection process. The CARB recommended approval of the causal analysis, with comments.

Pacific Northwest National Laboratory, Radiochemical Processing Laboratory (RPL): A worker engaged in semi-annual replacement of facility criticality alarm system detectors with newly calibrated units received a shock while inserting a power plug into a replacement detector. A subsequent check of the two replaced units was not able to determine the cause of the electrical shock. A critique was held and RPL management is directing additional actions to investigate the cause, which includes a review of the fabrication of the units. All criticality alarm detectors, including the ones held as spares to support the semi-annual TSR surveillance calibration requirements, were replaced last year with new units. Both replaced units remain out of service, but the alarm system is operable with the remaining detectors.