

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 22, 2017

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending December 22, 2017

D. Gutowski completed his tenure as Hanford Resident Inspector.

Plutonium Finishing Plant (PFP). There were two contamination spread events at PFP this week. On Friday, after the contractor completed demolition of the remaining Plutonium Reclamation Facility (PRF) walls, contamination was found on a survey plate located outside of the contamination control area. Follow-up surveys identified several other locations of contamination near the survey plate including one on a vehicle that was parked near the location. The contractor worked to stop the potential for further contamination spread by applying dirt and fixative to the PRF debris pile and expanded the contamination control area to encompass the area where the contamination was found. However, on Sunday night and Monday, high winds picked up and distributed contamination from the PRF demolition zone contamination control area resulting in another contamination spread into uncontrolled areas including roadways, parking lots, and the area that contains many of the facility's primary support buildings. The contractor stopped the contamination migration by using additional soil cover and fixative to stabilize contaminated areas in and around the demolition zone. They also performed extensive surveys of the area surrounding PFP. The surveys have resulted in significant expansion of contamination control area. Contamination was also found on a number of vehicles that were at the facility or traveling in the vicinity of the facility during the event. All of the vehicles have been either decontaminated and returned to service, or sequestered in radiologically controlled areas until decontamination and additional surveys are complete, and a determination is made whether they can be returned to service. In a few identified cases, the contractor determined that there was a potential for a contamination being carried off site by workers who returned home at the end of their shift. Those areas have also been surveyed and no contamination was found. Although there was no indication of high airborne contamination levels during either event, the contractor has offered bioassays for any individual who is concerned about a potential uptake. A substantial number of individuals have accepted the offer. The contractor continues to work recovery efforts but all demolition work has been stopped. The contractor will evaluate their contamination control methods and brief RL regarding actions that they will take to prevent additional contamination spreads into uncontrolled areas before resuming work.

T-Plant. The contractor completed their assessment of T-Plants readiness to receive and store sludge from 105 K-West Basin. There were two prestart findings. The readiness team stated that the facility was exceptionally well prepared for the assessment and recommended that the startup authority authorize sludge storage and receipt when the pre-start findings are resolved and remaining items on the facility's manageable list of open items are complete.

Tank Farms. The contractor completed their evaluation of a recent PISA regarding the use of incorrect sample tube size information for determining purge times for head space sampling on three DSTs (see Activity Report 12/8/2017). The determined that a USQ did not exist.