

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 5, 2018

TO: S. A. Stokes, Technical Director
FROM: P. Fox, Hanford Resident Inspector
SUBJECT: Hanford Activity Report for the Week Ending January 5, 2018

Plutonium Finishing Plant. Although somewhat hampered by winter storm conditions, the contractor is continuing their efforts to recover from contamination releases that occurred on 15 and 17 December (see Activity Report 12/22/2017). They are performing boundary surveys and monitoring airborne contamination levels to confirm that the release is contained within the existing radiological control boundaries. Results of those surveys indicate that the ongoing containment efforts are successful since the only positive contamination survey results since the initial post event surveys have been located in posted radiological areas. Boundary continuous air monitor readings are also normal providing additional evidence that there is no ongoing contamination release. Recovery work continues to focus on fixative application to prevent spreads until a soil cap can be placed over contaminated areas. In addition to preventing further contamination spreads, the soil cap, which the contractor started placing this week, will allow down-posting of some of the contamination areas to underground radioactive material areas. This will help simplify follow-on recovery efforts. In addition to the soil cap placement, the contractor continues to survey and decontaminate vehicles that were located at the site during the events. So far, they have surveyed 68 of 91 affected government vehicles. Contamination was found on fifteen and those vehicles have been either decontaminated or sequestered until decontamination is complete. Additionally, surveys have not identified any additional contaminated privately owned vehicles beyond those previously reported. Survey opportunities were also provided for vehicles that traveled near or were parked in the vicinity of the facility during the event. Those surveys also did not identify any contaminated vehicles. The contractor continues to offer employees the opportunity for a bioassay analysis. Data is also being collected from Washington State Department of Health air samplers and survey plates to help further characterize the event. Lastly, the contractor has started a causal analysis. So far, that effort has focused on the development and understanding of an event timeline and the start of a barrier analysis to identify relevant barriers and their effectiveness related to the event.

105-KW Basin. The contractor Hazard Review Board (HRB) met to evaluate the procedures that they will use to move sludge from the basin to sludge transport and storage containers in the annex. They also evaluated the work team's readiness to execute the procedures. The Resident Inspector notes that both the procedure and the work team were well prepared for the evaluation. This level of preparation resulted from the contractor's efforts to provide opportunities for procedure development and work team practice both in a mockup prior to equipment installation in the facility and in the facility after systems were installed. The HRB identified only minor comments and recommended approval of the procedures. The contractor subsequently decided to delay the upcoming contractor Operational Readiness Review (ORR) one week to allow an additional dress rehearsal of the work team's execution of the procedure prior to the ORR.

Tank Farms. The contractor completed their evaluation of the causes that resulted in a buckled long-length thermocouple (see Activity Report 8/4/2017). Although the evaluation is complete, they are still working with ORP to determine a removal method will prevent similar failures.