DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 2, 2018

TO: S. A. Stokes, Technical Director
FROM: P. Fox, Hanford Resident Inspector
SUBJECT: Hanford Activity Report for the Week Ending February 2, 2018

DNFSB Staff Activity. D. Cleaves was onsite to observe the Engineered Container Retrieval and Transfer System (ECRTS) contractor Operational Readiness Review (ORR) at 105-KW.

105-KW Basin. The contractor paused the ECRTS contractor ORR to allow the facility time to resolve equipment problems that are interfering with operational demonstrations. They will also use the additional time to improve procedures and practice operations.

Plutonium Finishing Plant (PFP). Contractor Radiological Control Technicians (RCTs) identified surface contamination on seven private vehicles during surveys that they performed after the contamination spreads that occurred on December 15 and 18, 2017 (see Activity Report 12/22/2017). The vehicles were decontaminated and returned to their owners. This week, one of the owners requested an additional survey. During that survey, RCTs identified another speck of low level alpha contamination (48 dpm/100 cm²). Based on that result, follow-up surveys were offered to the owners of the other six vehicles. Three individuals declined. The surveys on the remaining three vehicles did not find any contamination.

The Washington State Department of Health (DOH) sent a letter of concern to DOE-RL regarding the spread of radioactive contamination released to the air and the environment during PFP demolition activities. The letter notes that DOH sampling has identified elevated results, but there have been no off site levels indicating a threat to public health. However, they note that if work resumes without better controls, a risk to the public may develop.

Tank Farms. The contractor Plant Review Committee met to consider a change to the DSA and a TSR that protects workers from the effects of an air blow accident during pneumatic leak testing of transfer line encasements. The change clarifies requirements for cases when the encasement fails the initial and a subsequent test, but the cause of the failure is not known. At that point, the DSA change defines the operability status of the transfer line as "indeterminate." Subsequent testing of the indeterminate line requires the use of a safety significant compressed air system pressure relieving device to limit air pressure in order to mitigate the effects of an air blow accident if it occurs during a test. The pressure relieving device is not required for testing operable transfer lines since the piping is the primary control for preventing air blow accidents.

Waste Treatment Plant. The contractor delivered a draft of the Low Activity Waste (LAW) facility DSA to DOE-ORP. DOE-ORP and DOE Headquarters personnel are reviewing the draft (see Activity Reports 11/3/2017 and 11/17/2017).

DOE-ORP informed the contractor that they are considering an option to place the High Level Waste and Pretreatment facilities in an asset preservation and maintenance state for three to five years to allow the contractor to focus attention on completing and commissioning the LAW with a direct-feed LAW configuration.