

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 19, 2018

**TO:** S. A. Stokes, Technical Director  
**FROM:** P. Fox, Hanford Resident Inspector  
**SUBJECT:** Hanford Activity Report for the Week Ending January 19, 2018

**DNFSB Staff Activity.** D. Minnema was onsite to collect information and observe ongoing radiological control actions related to the Plutonium Finishing Plant contamination spread.

**Plutonium Finishing Plant (PFP).** The Environmental Protection Agency (EPA) and Washington State Department of Ecology (Ecology) sent a joint letter to the Richland Operations Office providing notification that they have determined that the recent contamination events at the PFP are creating a danger to the health or welfare of the people on the Hanford Site and to the environment. Based on that determination, they ordered a stop work under Article XXXII (“Creation of Danger”) of the Hanford Federal Facility and Consent Order. The EPA and Ecology will have to agree that RL has taken sufficient actions to resolve the problem before the remaining demolition work can resume at PFP.

The contractor continues to perform non-demolition recovery actions including surveys, soil cap placement, and application of fixatives to prevent further contamination spread. Based on the results of air samples and contamination surveys, no new contamination spreads have occurred since December 17. However, a courtesy survey identified low level contamination on one hand of an individual who was working in a trailer located in a non-radiologically controlled area. The individual’s hand was decontaminated and the decontamination materials were sent for analysis which determined that the cause of the positive reading was radon daughter decay. Although the contamination resulted from natural sources, the contractor removed all support work facilities from the controlled work area to prevent misconceptions and eliminate confusion.

**PUREX.** Last week, the contractor held a kickoff meeting for the PUREX Storage Tunnel 2 stabilization project. During the initial phase of the project, they will focus on the development of design requirements for structurally stabilizing Storage Tunnel 2 with grout. That effort will include: preparation of a strategy to support the site investigations that are necessary to further characterize the work and support development of the design; identification of access points for ventilation, grout placement, and monitoring; selection and testing of grout mixes; and development of site preparation requirements. Although a specific start date has not been determined, grout placement is expected to start late in this fiscal year.

**Tank Farms.** On Wednesday, workers placed a stop work on the use of tight fitting respiratory protection over concerns related to several instances of skin irritation that occurred during use of respiratory protection masks. The stop work precludes all work inside the tank farms except work in support of Technical Safety Requirement and environmental compliance surveillances. The stop work also places a hold on respiratory equipment training at the Hammer Training and Education Center. There have been no recent changes in mask cleaning procedures or chemicals that would explain the problem. The contractor has sent samples from the masks to a laboratory in an effort to determine the cause. The stop work will not be lifted until the results of the samples are received and communicated to the work force.