

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 18, 2017

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending August 18, 2017

PUREX Plant. The contractor's Hazard Review Board (HRB) met to evaluate the work package to remove soil in the vicinity of the filled subsidence (see Activity Report 05/12/2017). The contractor intends to use an excavator and a guzzler to remove a small portion of the fill material placed to provide radiation shielding and stabilize the tunnel. The soil removal is necessary to support installation of the work platform and pipes that support grout placement. All below grade fill will remain in place as well as most above grade fill up to a level of four feet above the tunnel. The work instructions, as written, required removal of some existing berm material. Per DSA requirements, except for a brief time period in a limited area to allow insertion of pipes into the tunnel, the work instructions would keep at least three feet of soil over the tunnel structure. The HRB rejected the package. They will reevaluate the work package after resolution of member comments regarding scope, work methods, and work controls.

The Resident Inspectors observed preliminary testing of the grout that will be used to fill Storage Tunnel One. The contractor's intent is to develop a specification that provides adequate strength and allows efficient grout placement while retaining the ability to flow adequately to accomplish the entire fill from the original subsidence location. Grouting from the subsidence location presents the least risk since the fill material placed after the collapse helps stabilize the tunnel. The contractor intends to perform additional testing next week.

Tank Farms. The contractor completed pump troubleshooting last Friday afternoon and successfully resumed sludge retrieval from Tank C-105 (see Activity Report 8/11/2017). Operations continued throughout the weekend and removed approximately 13,400 gallons of sludge from the tank, over a third of the starting volume. Industrial hygiene monitoring during this initial phase supports moving to 24/7 operations rather than continuing to restrict retrieval activities to nights and weekends. The next phase of retrieval continued this week with a hot water addition, recirculation, sampling, and transfer to AN-106.

The contractor transferred 775,000 gallons of waste from tank AW-106 to tank AW-102 to support the next evaporator campaign using a new transfer pump.

Building 324. The Resident Inspectors observed an independently evaluated emergency preparedness drill at Building 324. The event initiator was the simulated crash of a cargo aircraft into Building 324 resulting in a facility fire, but no significant radiological release.

Secretary of Energy. Secretary Perry visited the Hanford site and Pacific Northwest National Laboratory. His visit included stops at the Waste Treatment Plant and the HAMMER Training Center, as well observation of the Plutonium Finishing Plant demolition site.

Office of River Protection. ORP Site Manager Kevin Smith announced he would retire from Federal service at the end of September.