

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 25, 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 25, 2017

Staff member D. Cleaves was on site providing Resident Inspector support.

242-A Evaporator. The contractor completed prerequisites for evaporator campaign EC-07 and introduced waste into the facility. Key items completed this week included restoration of one of the safety-significant interlocks and partial completion of a reboiler integrity test. In 2014, ORP directed that the contractor perform the reboiler integrity test prior to the required five year TSR frequency. An earlier attempt to complete this test was hampered by sampling difficulties. Samples were successfully obtained this week and will be analyzed for the dye penetrant. The contractor has decided not to repair the general service standby diesel generator transfer switch before the campaign and the generator remains isolated (see Activity Report 7/28/2017).

EC-07 was evaluated per the SAC for double shell tank (DST) induced gas releases and the evaluation showed that the LCO on DST induced gas release flammable control was applicable. The contractor placed administrative restrictions on activities in AP Farm where the concentrated waste will be received due to the potential to enter that LCO which includes tighter requirements on the operability of DST ventilation systems.

PUREX Plant. The contractor is using a mockup of Storage Tunnel 1 to develop the method for introducing the grout delivery pipes into the tunnel. Some of the practices they evaluated include the use of a trench box to reduce the amount of soil sloughing, installation of a sliding door over the trench box access cutouts to keep soil from entering into the trench box during the soil removal operations, the design of a slip form to maintain vertical orientation of the trench box during installation, and the addition of handles on the outside of the soil vacuum truck hose sleeve to provide better operator control.

The contractor conducted an emergency preparedness exercise as part of their preparations for performing grout placement into PUREX Storage Tunnel 1. The exercise simulated a 20 foot by 20 foot breach in Storage Tunnel 2. The drill was initiated when workers discovered the breach while performing their daily surveillances.

Plutonium Finishing Plant. The contractor has determined that a criticality event is no longer credible in 234-5Z. Other ongoing efforts focus on the removal of combustible materials from the facility to support mechanical isolation of the facility and completion of the ready for demolition checklist. 234-5Z is the last section of the facility to enter into final demolition.

Tank Farms. ORP approved a revision to the contractor's USQ Process.

The contractor held a meeting with the work team and engineering staff to discuss ideas for preventing thermocouple sleeve buckling during future thermocouple removal activities (see Activity Report 8/4/2017).