

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 4, 2015

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending September 4, 2015

D. Gutowski was offsite this week.

Tank Farms. Recently, the contractor removed the failed transfer pump from tank AY-101 (see Activity Report 7/3/2015) and installed a new pump. The new pump was leak checked and subsequently used this week to perform a waste transfer from tank AY-101 to tank AZ-102. This transfer supports evaporator campaign 3, which is expected to occur later this month.

The contractor finished laying out the hose-in-hose transfer lines that support removal of waste from leaking tank AY-102 and has started installation of the shielding. The contractor's Joint Test Working Group (JTWG) also met to review documents that establish requirements and acceptance criteria for new equipment installed to support AY-102 waste retrieval. The documents included the overall test plan for the tank AY-102 waste retrieval systems and an associated sub-test plan that supports testing of the new equipment in tank AP-102, which will receive the waste. The JTWG forwarded the documents to the contractor's Joint Test Group for consideration.

Plutonium Finishing Plant (PFP). Early this week, the contractor identified a waste drum that appeared to exceed criticality safety limits. The field measurements performed by operators during drum load out indicated that the drum was below the limit. A subsequent measurement by non-destructive assay (NDA) personnel using a neutron multiplicity counter indicated that the drum exceeded limits by about 10%. The contractor isolated the drum and consulted with project NDA scientists. Based on that consultation, the drum was re-evaluated using gamma-ray spectroscopy which determined that the activity of the drum was about half of the limit.

The contractor has completed size reduction and removal of the HC-9B glovebox. Removal of the high mass glovebox significantly reduces the remaining material at risk in the facility and represents a significant step in preparing PFP for demolition. The contractor is now preparing to size reduce and remove HA-9A, the last remaining high holdup glovebox, from the facility.

River Corridor Closure Project. The site rep observed a contractor Senior Management Review Team (SMRT) evaluation of the technical procedure that governs the use of an auger to remediate over-cased vertical pipe units. The team also evaluated the ALARA review that identifies necessary radiological controls to support the work. The presenters were well prepared and overall meeting execution was effective.

The contractor performed a mockup activity to demonstrate a new process for remediating concreted drums. Under the old process, the drums were size reduced in grout that was subsequently allowed to set. The grout material was then broken up and loaded into containers for disposal. Under the new process, the grout is loaded while wet. The new process is expected to result in better contamination control (see Activity Report 7/19/2015).