

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 15, 2016

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski Hanford Site Representatives
SUBJECT: Hanford Activity Report for the Week Ending April 15, 2016

Tank Farms. The contractor confirmed that the engineered controls for minimizing worker exposure to radiation and vapor hazards during AY-102 retrieval operations are effective, but there have been cases where there is a distinct ammonia odor in the AY and AP tank farm areas. Consequently, to minimize concerns and potential impact resulting from odor events, they conservatively decided to continue performing most AY-102 retrieval activities at night and on weekends. However, they have removed the requirement for supplied air usage in AY and AP farms during retrieval operations. The contractor has made significant progress in emptying the tank. At the end of retrieval operations on Monday, April 10, the contractor had retrieved approximately 64% of the sludge in tank AY-102, and overall retrieval (supernate and sludge) was at 92%. The contractor resumed retrieval on the evening of April 14, but was interrupted the next day by startup problems with the AP-102 supernate pump and a loss of area power.

The contractor Plant Review Committee (PRC) met to review a DSA change that establishes controls on DST leak detection pits (LDP) that contain tank waste to protect workers from spray leaks. The control allows removal of intrusion water that might enter the LDP, but the contractor would need to establish additional controls before waste could be pumped out of the LDP. The PRC concurred with the change and it was forwarded to ORP for approval.

242-A Evaporator. On April 8, a safety-significant high level interlock activated resulting in a slow dump of the evaporator pot. The interlock trip was caused by the loss of 90 psig steam pressure which subsequently caused a loss of vacuum in the evaporator system. The evaporator was recovered when steam flow was restored and operated continuously until April 15 when operators initiated a dump following a fire alarm related to an area power loss.

Sludge Treatment Project. A Site Rep observed the installation of the Engineered Container Retrieval and Transport System ingress/egress assembly at K-Basin. The assembly provides the in-basin connection point for the hose-in-hose transfer lines that will transport the sludge from the basin to the transport containers that will be staged in the new K-Basin annex. The contractor work team installed the 2300 pound unit without incident.

Plutonium Finishing Plant (PFP). The contractor completed activities that support implementation of DSA Rev 13 and the PFP PRC approved the implementation. The revision further downgrades steam-driven exhaust fans from defense in depth to non-safety. This action will allow the contractor to secure steam to the PFP facilities. Although the contractor could remove the fans from service immediately, they intend to keep them available for operation until major work activities are complete in 234-5Z. This will help prevent contamination spreads that could affect ongoing work activities from occurring due to ventilation failures.

618-10 Burial Grounds. A contamination spread occurred at the burial grounds during drum processing. A definitive source was not identified, but it most likely originated from the area where the drums were retrieved. Surveys and cleanup of the spread are complete.