

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 31, 2017

TO: S. A. Stokes, Technical Director
FROM: P. Fox and D. Gutowski, Hanford Resident Inspectors
SUBJECT: Hanford Activity Report for the Week Ending March 31, 2017

D. Gutowski was off site for training.

Plutonium Finishing Plant: The demolition team completed removal of the Americium Recovery Facility (242-Z) (see Activity Report 3/24/2017). The open air demolition work on this highly contaminated facility was completed without significant incident. Demolition team efforts are now focused on completing the demolition of the Plutonium Reclamation Facility.

While performing asbestos removal activities in 234-5Z, a worker who had been incorrectly informed that all electrical power had been removed from room 211 cut into a conduit containing an energized criticality alarm system circuit. The facility entered the appropriate LCO until the criticality alarm system was repaired and tested. Contractor management has identified the causes that led to the confusion and is implementing appropriate corrective actions.

Tank Farms. The contractor Plant Review Committee approved a safety basis amendment that allows tank C-105 retrieval operations to transition from use of a Mobile Arm Retrieval System – Vacuum (MARS-V) system back to use of an Extended Reach Sluicer System (ERSS). The contractor decided to use the ERSS after the MARS-V system failed during retrieval operations (see Activity Report 9/25/2015). The amendment also clarifies the safety basis to allow the use of installed ventilation system flow instrumentation in lieu of manual instruments for compliance with LCO 3.1 in AY/AZ tank farms. The amendment will next go to DOE for approval.

Waste Treatment Plant. The ORP Senior Review Board (SRB) recommended approval of an interim change package to the Low Activity Waste Facility PDSA. The change package incorporates hazard control strategy changes identified in five recently released safety strategy documents. The most significant changes include moving the ammonia and carbon dioxide tanks outside of the nuclear facility boundary. Accidents related to these tanks are now treated as man-made external events. However, the SRB recommendation includes actions necessary to retain an option to reverse this decision for the carbon dioxide tank in the event that ongoing hazard analyses determine that removal of the tank from the nuclear facility boundary is inappropriate. The change package also includes an extensive list of planned design and operational improvements that must be evaluated for inclusion in the final facility PDSA.

T-Plant. The contractor Hazard Review Board met to evaluate the work package that will be used to control testing of systems and components that were installed in T-Plant to support storage of K-Basin sludge in the canyon hot cells. The meeting was conducted formally and effectively, and the field work supervisors and test coordinator were exceptionally well prepared for the evaluation. The HRB approved the work document with comments.

Waste Encapsulation and Storage Facility. The contractor has completed actions to recover from the temporary ventilation contamination event that led to high radiation levels in the facility canyon (see Activity Report 12/23/2016).