

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 9, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Z. C. McCabe Resident Inspector
SUBJECT: Savannah River Site Activity Report for Week Ending July 9, 2021

H-Canyon: H-Canyon personnel installed a lockout on a valve for the instrument air dryer system. During the determination phase of the lockout, the determiner noticed that the chain used to keep the valve in the correct position was not secured. The chain was woven through the valve, but the lock was only attached to one end of the chain. The determiner informed their first line manager and did not establish the lockout. The error occurred during a busy night shift which H-Canyon personnel believe contributed to the event.

H-Canyon personnel developed a lockout to support maintenance activities due to an ongoing chiller issue. After the lockout was installed, H-Canyon personnel determined that it would need to be revised to allow for additional tasks. One of the new tasks, disconnecting a pressure switch, was not routed to the electrical engineer for review. While doing maintenance, a Qualified Electrical Worker (QEW) identified voltage on the switch with a proximity voltage tester while they performed the required “test before touch.” They called a timeout and notified management. H-Canyon personnel have developed several corrective actions, including revising the reference drawings, revising the lockout and developing a lessons learned.

Savannah River Tritium Enterprise (SRTE): SRTE personnel load waste containers with radiological waste for shipment to and disposition in the Solid Waste Management Facility’s Intermediate Level Vault. Recently, SRTE personnel shipped a B-6 waste container that was originally sealed in March 2021. The container was supposed to ship in June; however, the container was off-gassing tritium above the allowable limit. Prior to shipping on July 1, SRTE personnel taped plastic to the top of the container to limit the off gassing. Immediately before shipping, SRTE personnel confirmed that the container was no longer off-gassing. Once it arrived at the SWMF, E-Area personnel performed surveys and measured 4×10^{-4} $\mu\text{ci/cc}$ tritium off-gassing. After stopping, E-Area personnel identified a small portion of the plastic that was not sealed. E-Area personnel were able to tape down the unsealed portion, which stopped the off-gassing. SRTE personnel believe the unsealed piece of plastic likely became dislodged during transportation.

H-Area New Manufacturing (HANM) personnel entered the applicable limiting condition for operation (LCO) associated with a tritium air monitor surveillance in a process room. This LCO requires an alternative method of monitoring for tritium prior to entry. HANM personnel began the work surveillance without alternative monitoring (i.e., radiological control personnel were not present) which violated the HANM Technical Safety Requirements. SRTE personnel will hold a fact-finding next week.

Environmental Management Operations (EMO): Based on the recent observations by the resident inspector, EMO is assessing radiological postings through targeted management field observations.