

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 6, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: L. Lin, Z.C. McCabe, and E.P. Richardson, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending September 6, 2024

Staff Activity: L. Lin was at Oak Ridge to provide resident inspector (RI) augmentation and exchange best practices with the RIs at the Y-12/Oak Ridge site.

Savannah River Tritium Enterprise (SRTE): While performing reservoir loading operations in H-Area New Manufacturing, a control room operator (CRO) failed to perform multiple procedure steps which led to a protective rupture disk bursting. The shift manager was nearby but did not supervise the recently qualified CRO that was performing this evolution for the first time.

SRTE personnel released a construction task that was added to a lockout without completing the appropriate review. When the shift manager reviewed the lockout to release the task, they did not notice the missing initials for construction personnel's review and approval. The added task was within the boundary of the hazardous energy control.

Tank Farms: Two workers experienced electrical shocks from the same piece of equipment a few hours apart in a construction welding shop. The first worker received a shock in the middle of their back while brushing against an electrical disconnect panel during welding operations. While investigating the issue, a second electrician received a shock on their arm when their skin contacted the metal closure tab on the disconnect panel. Both workers were evaluated and released by the construction nurse and site medical with no restrictions. Following further investigation, the facility determined that an unknown person filed a protective safety tab off the ground prong, which allowed workers to insert the plug into an electrical supply cabinet in any orientation instead of ensuring the ground prong was aligned to ground. This caused the ground wire to supply line voltage (277 Volts AC) to the disconnect panel casing (which was also not properly grounded), which led to both personnel receiving shocks when they contacted the bare metal closure tab. The facility is conducting a root cause analysis of the event.

Liquid Waste Contractor Conduct of Operations (ConOps) Manual: SRMC began operator training on their new "S30" ConOps Manual, currently scheduled for implementation in late October 2024. This manual aligns requirements across all liquid waste facilities, notably the Salt Waste Processing Facility, which currently uses a Parsons program document, with the other liquid waste operations facilities, which currently use the site "2S" ConOps Manual. SRMC's election to develop a new and unique product was motivated by a desire to show better alignment with DOE requirements, allow for a more graded approach to ConOps considering the unique liquid waste mission (i.e., a leaner manual), and ensure more consistent implementation across SRMC facilities. Training at DWPF was well executed and delivered by an experienced DWPF ConOps advisor at the facility. This ensured appropriate messaging relative to the unique challenges and weaknesses demonstrated at DWPF in ConOps over the last 18 months. The RIs previously observed "S30" training sessions conducted by the SRMC training department, which appeared less effective.