

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 24, 2023

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** A.Z. Kline, L. Lin, Z.C. McCabe, and E.P. Richardson, Resident Inspectors  
**SUBJECT:** Savannah River Site Activity Report for Week Ending March 24, 2023

**H-Canyon:** While preparing for maintenance, an operator installed a lockout on the incorrect component (an adjacent breaker in the same panel) and a second operator then independently verified it without noticing the error. A construction electrician performing the safe energy state determination identified the error prior to the lockout being established or any work performed.

**E-Area Annual Exercise:** SRNS conducted the E-Area annual evaluated exercise on 3/23/2023. The scenario involved a Solid Waste Management Facility (SWMF) operator discovering a fire in a non-radiological waste container on a transuranic (TRU) waste pad. While attempting to extinguish the fire in the incipient stage, the operator used a fire extinguisher which failed and only released compressed air, knocking the container over and allowing the fire to spread to a nearby TRU waste container and scissor lift. The resident inspectors observed the exercise at the incident scene, communications trailer, and technical support room. SRNS and DOE-SR are evaluating the exercise performance.

**Radiological Fire Training:** SRS conducted the third of four large scale, multi-faceted training exercises at the Waste Solidification Building (WSB) where the SRS Fire Department, Radiological Protection Department (RPD), Emergency Management, and operations teams simultaneously respond to the event. All responders fully dressed out in bunker gear, respirators, and routed hoses to extinguish a simulated fire in a second-floor glovebox. RPD personnel surveyed firefighters and victims while SRNL operations personnel staffed the WSB Control Room to interact with responders and provide an Incident Scene Coordinator (ISC) to the Incident Command Post. This full day event was highly beneficial to all parties involved.

**Salt Waste Processing Facility (SWPF) Fire:** On March 22, maintenance personnel replaced two blown fuses on a variable frequency drive (VFD) for the caustic side solvent extraction process. Upon re-energizing the VFD, they noticed smoke and flames from the VFD drive and immediately de-energized the panel. Maintenance personnel immediately contacted control room personnel, who entered the abnormal operating procedure (AOP) for a fire, notified personnel to exit the building and report to the fire assembly area, and made notifications. The fire department arrived and evaluated the conditions in the VFD contactor room. The fire had self-extinguished within a few minutes. All personnel were accounted for and there were no injuries. The event was reported as a fire in a nuclear facility. A fact-finding meeting was held the day after, but the cause of the fire is unknown at this time. The doors to the VFD room have been secured, a lockout is installed on the VFD, and there is a work order to replace the VFD. The management team discussed doing an extent of condition on the other VFDs and checking the diodes. The VFD that caught fire may be sent out for post-mortem analysis. During the fact-finding, facility personnel discussed that the response to the fire was good, with one opportunity for improvement to consolidate the two J-Area AOPs for fires. However, personnel did not discuss that the facility entered the AOP for fires in J-Area excluding the processing building, and they should've entered the AOP for a fire in the processing building.