

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 21, 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 April 21, 2023

Facility Representative (FR) Assessments: As part of an ongoing local review, the resident inspectors (RIs) reviewed all FR assessments of defense nuclear facilities at SRS for fiscal year 2022. The resident inspectors met with the DOE Waste Disposition Operations Division Director, Nuclear Materials Stabilization Operations Division Director, Savannah River Laboratory Operations Director, and the NNSA Assistant Manager for Operations individually to discuss FR assessments, their expectations, guidance, and how the results are used.

Tank Farms: A carpenter on a scaffold was supporting hut modification work near riser 8 of Tank 14. While preparing to pass a tool to another carpenter on the platform above, the carpenter lost their balance and fell approximately 5 feet 7 inches, which resulted in the carpenter fracturing their wrist and spine. Personnel nearby responded immediately and contacted the control room who requested an ambulance. The ambulance arrived just as the injured carpenter had doffed protective clothing and monitored out of the radiological area. First responders then transported the individual to a nearby hospital. Hospital personnel discharged the carpenter approximately three hours later. SRMC personnel are investigating the event and noted that the scaffold platform the carpenter was using consisted of two aluminum pick boards with a small gap between them. Although there is no requirement to not have a gap, SRMC personnel suspect that the gap may have contributed to the carpenter losing balance and falling. SRMC personnel are still investigating the cause and will develop long term corrective actions. SRMC halted all construction work until a safety briefing on this event was conducted. Further, SRMC has instituted compensatory measures for scaffolds until permanent corrective actions are developed and implemented. The compensatory measures include requiring fall protection for any work above 4 feet and to ensure there are no gaps between pick boards greater than 1 inch.

Defense Waste Processing Facility (DWPF): An operator manipulated the power supply breaker associated with uninterruptible power supply (UPS) Y91 instead of UPS Y11 as required. This caused a loss of Distributed Control System (DCS) communication between the primary DWPF control room and all facility equipment, power to the alternate control room equipment, and the public address system. All safety class and safety significant equipment operated as expected during this event. The operations team entered all appropriate abnormal operating procedures and restored power to the impacted equipment by placing UPS Y91 in external bypass within approximately 25 minutes. An RI attended the issue investigation meeting, which was conducted professionally and followed the new site requirements.

Salt Waste Processing Facility (SWPF): On April 20, an external bus duct going from a transformer to SWPF caught on fire, resulting in a loss of power. This in turn caused loss of differential pressure in the safety significant process vessel ventilation system. The facility entered abnormal operating procedures for a loss of power and for a fire outside of the process building and made the proper notifications. There were no injuries, the facility is in a safe condition, and a fact finding will be held.