

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

March 7, 2025

**TO:** Technical Director  
**FROM:** Savannah River Site Resident Inspectors  
**SUBJECT:** Savannah River Site Activity Report for Week Ending March 7, 2025

**Savannah River National Laboratory (SRNL):** SRNL management resumed the contractor readiness assessment for the Mk-18A target material recovery program (see 11/8/2024 report). Resident inspectors (RI) observed multiple demonstrations throughout the week, including a nitric acid transfer, assembly of a special form capsule, bagless transfer operations, and loading a Mk-18A Type A drum.

**K-Area:** An RI observed K-Area operations personnel moving loaded 9975 shipping packages within the material storage area. The operations team filled out the serial numbers of the shipping packages on the procedure data sheet that were provided by Material Control and Accountability (MC&A), but they were unable to locate four of the drums during field execution. Additionally, the team utilized an unreviewed list of handwritten serial numbers to conduct their search but were still unsuccessful. The first line manager halted the evolution and called the control room to verify the serial numbers in the procedure. The shift operations manager (SOM) confirmed that the four drums were transferred to H-Canyon and correctly annotated in the official database; however, the MC&A transaction paperwork was awaiting closure.

**Savannah River Tritium Enterprise (SRTE):** In the past week, SRTE had three more plastic suit issues in addition to the five during the month of February (see 2/28/2025 report). Most of these issues occurred while personnel were working in H-Area New Manufacturing (HANM), but two of the recent issues occurred at the Tritium Extraction Facility (TEF), which is in an open glovebox maintenance mode for repair and replacement of equipment. Two of the recent issues involved tears in plastic suits and one involved a nail penetrating through multiple layers of personal protective equipment. SRTE management held an issue investigation on the latter event and performed an extent of condition review to check for and remove sharps at both HANM and TEF. They also conducted a roundtable with personnel involved in the earlier incidences to discuss actions that could help prevent recurrence of issues. Several of the workers were new to plastic suit work and noted that while the site training on plastic suits covers pre-use inspections, donning, and doffing, it does not reflect real working conditions, and the range of movement needed to perform work.

**Salt Waste Processing Facility (SWPF):** While processing radioactive waste, an operator added less monosodium titanate (MST) than needed. MST is added to the alpha sorption tank to separate out radioactive strontium and actinides from the rest of the solution. The procedure directs the operator to input values from the run plan into the basic process control system. In this case, the operator used a value from the wrong block in the run plan, resulting in less MST being added. The procedurally required second person verifier also read the wrong block and signed off on the step. The second person realized their mistake later when they noticed that the amount of MST added was lower than previous runs. They notified the SOM who contacted nuclear and criticality safety personnel. They concluded that the MST could be made up in the next batch and revised the run plan to make up the deficient amount.