**DEFENSE NUCLEAR FACILITIES SAFETY BOARD**

October 28, 2022

**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 October 28, 2022

**Site Training:** Site training management briefed the resident inspectors (RIs) on progress made on the regulatory training improvement plan (see 8/19/22 report). The RIs observed the implementation of several corrective actions that demonstrated significant improvements in job performance measure procedures and training oversight.

**Solid Waste Management Facility (SWMF):** Operations personnel performed a characterization evolution on a Transuranic (TRU) waste drum. The assay results indicated higher than expected plutonium equivalent curies and required expert analysis to confirm. The operating procedure dictates that the TRU waste drum remains in the characterization unit (a safe configuration) until the expert analysis is completed to ensure the assay results are correct and the associated safety basis and criticality safety requirements are met. However, operations personnel removed the drum from the characterization unit and isolated it without using approved procedural guidance. As a result, they did not document the implementation of criticality safety controls for storing the TRU waste drum. Facility management subsequently verified criticality safety requirements were not violated after the evolution was completed. The corrective actions identified during the issue investigation included adding verbiage to the procedure to clarify not removing the TRU waste drum from the characterization unit. The issue investigation did not discuss the current state of the operating procedure, contributing conduct of operations issues, or the failure of personnel to use human performance improvement tools such as a timeout.

**Savannah River Tritium Enterprise (SRTE):** SRTE personnel performed a tabletop drill as a corrective action for a recently performed field drill. They identified a number of weaknesses in the tabletop drill, including conflicting guidance in draft procedures and lack of role play by the facility staff. The departure of the SRTE Emergency Planning Coordinator (EPC) a month prior and the lack of formal declaration of who is fulfilling the role of the EPC likely contributed to these weaknesses.

While operating a guillotine door for an airlock inside a glovebox, the SRTE operator experienced a glove puncture from an unknown source. Immediate actions were taken to verify that no skin break occurred and to decontaminate the individual. Upon further investigation, SRTE personnel found a strand of wire rope that separated from the rest of the rope and protruded from the wire rope clips that secured it to the guillotine door. An extent of condition review revealed that similar issues exist on over a dozen airlocks within SRTE. The reference procedure used to operate these doors requires a pre-use inspection, but it appears this inspection is to ensure the door will function properly rather than to ensure it is safe to operate. Due to the small size of the wire strand and the visual inspection being performed through a pane of glovebox glass, performing such a safety inspection is impractical without using additional tools (e.g., a camera with a zoom lens).