

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 29, 2024

**TO:** Timothy J. Dwyer, Technical Director  
**FROM:** L. Lin and E.P. Richardson, Resident Inspectors  
**SUBJECT:** Savannah River Site Activity Report for Week Ending November 29, 2024

**SRNS Deliberate Operations:** Due to multiple recent technical surveillance requirement (TSR) violations and conduct of operations issues, SRNS management has placed all their facilities into deliberate operations. The facilities will only be performing essential and approved activities with additional management oversight. Additionally, they have deployed personnel from the independent evaluation board to conduct additional oversight and evaluation of personnel performance at SRNS facilities and initiated a common cause analysis focused on the TSR violations across the site, including SRMC and BSRA (see 11/15/2024 and 11/22/2024 reports).

**Savannah River Tritium Enterprise (SRTE):** The facility declared a TSR violation due to Material Test Facility (MTF) personnel failing to properly manage a tritium storage container. During a routine surveillance, a technician discovered that the tritium filled container was leaking into its credited secondary container and appropriately stopped, placed the plant in a safe configuration, and informed reservoir engineering personnel. Management contacted the design agency, who recommended that the unit be unloaded. MTF personnel did not enter the limiting condition for operations (LCO) for a non-robust container upon suspending the procedure or re-establish the inert atmosphere by flushing and backfilling the secondary container prior to removing the container from the testing apparatus as required by procedure. In addition, workers subsequently violated the TSRs two additional times when they moved the container from the hood to a glovebox without following the requirements prescribed in the secondary container controls and empty container verification specific administrative controls. These controls are credited to limit the oxygen concentration and amount of tritium released to prevent an explosion and to limit the radiological consequences. The facility is in the LCO for non-robust containers, which requires the non-robust container be placed in a secondary confinement system or qualified secondary containers within 7 days. SRTE management developed a response plan to transfer the container to a credited glovebox in H-Area New Manufacturing. Management has put the surveillance procedure on administrative hold and will conduct a root cause analysis and develop corrective actions.

SRTE declared another TSR violation when radiological controls personnel discovered during daily rounds in the Tritium Extraction Facility that the sample inlet valve to a credited tritium air monitor (TAM) was in the incorrect position, which prevented its operation. Investigation revealed that operators left the valve in the “background” position rather than the “sample” position following a monthly surveillance completed two days prior to the discovery. The procedurally required independent verifier for the surveillance and a radiological control inspector (RCI) performing daily rounds the next day both failed to identify that the valve was in the wrong position. Two other credited TAMs were functional in the room during this time period and neither recorded any abnormal activity levels. The investigation team identified operators not using a flashlight in poor lighting conditions, complacency, and insensitivity/inadequate level of knowledge of the RCI as the initial causes. The facility is conducting a root cause analysis of the event.