DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 31, 2025

TO: Technical Director
FROM: Savannah River Site Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending October 31, 2025

Savannah River National Laboratory (SRNL): While performing a job site review for upcoming work to repair a leaking fire suppression system sprinkler head, a worker raised concerns about the lockout/tagout boundary. They identified that the isolation of the specified pressure sources might be inadequate to ensure a safe energy state. The worker also raised concerns that the approved work package could not be performed as written (i.e., utilizing a ladder) due to the location of the leaking sprinkler head. During initial discussions with facility operations, work group supervision, and safety representatives, they identified an alternate plan to utilize structural beams as the working surface. Site manuals and procedures regarding employee safety require that work at elevated heights above 6 feet be analyzed for fall protection, and that controls to mitigate the hazard be incorporated into approved technical work documents. The approved hazard analysis and work package did not fully evaluate fall protection. The facility has coordinated with rigging to walk down the work area and will revise the work package to address additional safety requirements, as applicable, to ensure the worker is protected against a fall hazard while performing the work.

SRNL personnel discovered that an expired standard reference material had been used for calibrating an imaging scale on a scanning electron microscope for approximately the past 2 years. At the issue investigation, personnel involved noted that they realized the material had expired in January 2025; however, they did not notify the appropriate personnel at that time. They did, however, deploy the use of a second, non-expired standard and performed consistency checks to ensure there were no abnormal deviations in the expired standard's data. Facility personnel have initiated an extent of condition and are working to develop formal documentation to ensure future testing is done with equipment that meets applicable quality requirements per appropriate specifications.

Salt Waste Processing Facility (SWPF): The RIs met with SWPF management to discuss their initiatives for improving maintenance work in high radiation areas and high contamination areas at SWPF. As leaks develop in the facility, several areas have much higher dose rates or higher contamination levels than expected during plant design. Due to necessary repairs or replacements, workers in those areas are exposed to high dose rates (see 5/30/2025 report). SWPF project management identified several tools and technologies to help mitigate the radiological risk to their personnel. They are looking at procuring several radiation-hardened robotic devices with the capability to collect dose measurements, deploy decontamination technologies at floor and elevated surface levels, lift several hundred pounds of equipment, and use interchangeable tooling (e.g., bolting, cutting). The decontamination technologies they are evaluating include laser ablation of surfaces paired with a HEPA vacuum filtration system, and ultrasonic cleaning that could be placed on pipes or pumps for internal decontamination. In addition, facility engineering is looking at ways to increase the ventilation flow in labyrinth rooms during maintenance work, such as by adding auxiliary ventilation and closing gaps in the labyrinth doors, to better contain any airborne contamination stirred up during maintenance.