DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 31, 2025

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

Staff Activity: Two members of the Board's staff were onsite reviewing implementation of aspects of the Savannah River National Laboratory safety basis. This portion covered three specific administrative controls: traffic control, transuranic waste venting verification, and hoisting and rigging.

H-Area New Manufacturing (HANM): A resident inspector attended a pre-job brief and observed construction personnel removing the hatch cover at HANM, an activity that hasn't been performed in over 20 years. Equipment will be removed from the hot-cold nitrogen process rooms and replacement equipment will be lowered into the facility. This activity requires a different ventilation mode in which the building will have less differential pressure with the outside atmosphere than normal. The facility is also in a limiting condition for operation during this time due to the impaired fire suppression system.

Tank Farms: The facility held an issue investigation for contamination events that occurred during removal of a pump from Tank 35. While workers were attempting to secure plastic sleeving over the pump, a strong gust of wind caused them to lose control of the plastic sleeving and spread contamination from the pump. Two of the contaminated workers were in the hut around the pump riser at the time, but a third contaminated worker was not near the hut. The two workers in the hut doffed their outer protective clothing and went to the decontamination facility where radiological protection department (RPD) inspectors found 12,000 dpm/100 cm^2 beta-gamma on their modesty clothing. The third worker doffed their protective clothing and alarmed the personnel contamination monitor while they were monitoring out of the area. Follow-up surveys by RPD inspectors found 300,000 dpm/100 cm^2 beta-gamma near the collar of their shirt. None of the workers had skin contamination.

Due to the contamination spread during the first sleeving attempt, workers wrapped a second plastic sleeve around the pump to contain the contamination. Crane operators lifted the pump out of the hut and were setting it down into a waste box when the choker holding one end of the load slipped. Personnel noted that the second sleeve made the package bulkier than normal, contributing to the difficulties with the choker gripping the load and with setting it down into the waste box. Personnel eventually successfully placed the pump in the box and installed the lid. RPD conducted surveys and found contamination in the area, most notably 120,000 dpm/100 cm^2 beta-gamma contamination on the ground outside the radiological buffer area. RPD personnel posted the area downwind of Tank 35 as a contamination area.

Personnel involved in the event failed to notify the shift operations manager (SOM) of the contamination events, and the SOM only found out while requesting assistance from RPD for a separate job and was told they were decontaminating personnel. The SOM entered the abnormal operating procedure for radiological events approximately an hour and a half after the first contamination event was discovered.