

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 30, 2025

TO: Technical Director
FROM: Savannah River Site Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending May 30, 2025

Staff Activity: A member of the Board's staff was onsite to augment the resident inspector.

Salt Waste Processing Facility (SWPF): Personnel continue efforts to lower dose rates in Room 136B so that maintenance personnel can enter to repair a leaking valve and replace a transfer pump in that room (see 5/16/2025 report). They deployed a robotic crawler in an attempt to flush the contamination into the sump using water. However, one of the crawler's tracks failed before the evolution could be completed. Radiological Protection Department survey results identified 640 rem/hr on the floor below the leaking valve and 50 rem/hr near the pump to be replaced. The facility is planning to use a remotely operated bridge crane to place temporary shielding below the valve to reduce dose rates.

Due to the contamination spread during a previous attempt to decontaminate Room 136B using a carbon dioxide blaster, facility personnel increased the airflow through Room 136B by closing the air balancing dampers to other rooms in that hallway. The work order for closing those other dampers permits them to be reopened if equipment in any of those rooms are to be used. To transfer solution from the solvent drain tank to the alpha sorption tank, operators opened one damper and completed the room closure procedure for room 135A. Following this transfer, a pump in Room 135C was used to recirculate the alpha sorption drain tank solution for sampling. Afterwards, the Shift Operations Manager (SOM) realized that the pump used was in a room that should have had its damper reopened and the room closed prior to the evolution. The SOM verified that the room had been locked and that the key remained under his control per the High Radiation Area/Very High Radiation Area Control program, ensuring no personnel were exposed during this period. As a corrective action, all equipment in the rooms with closed dampers have been administratively locked to prevent inadvertent operation.

Defense Waste Processing Facility (DWPF): A staff member attended a qualification board for a Control Room Manager position. The questions were relevant and covered multiple aspects of facility operations, including emergency response, technical safety requirements, safety systems, and abnormal operations.

Saltstone: A staff member attended an issue investigation at Saltstone related to a failure to follow a prescribed hazardous energy control process that resulted in potential worker exposure to uncontrolled hazardous energy. Maintenance personnel were performing a line break as part of corrective maintenance on a premix system dust collector. Personnel locked and tagged out an isolation valve and made a zero-energy determination, which was performed by verifying valve position only. The local pressure gauge read approximately 95 psi while the line was being vented, which exceeds hazardous energy thresholds on the piping system. The issue investigation revealed several potential deficiencies, including a missing component label on the vent valve, the vent valve not being included in the lockout/tagout as required, and evidence that the tagged-out valve may have leaked by, resulting in air pressure in the line.