

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 28, 2025

TO: Technical Director
FROM: Savannah River Site Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending February 28, 2025

Staff Activity: The Associate Technical Directors for Nuclear Weapon Programs and for Nuclear Material Processing and Stabilization were onsite for site familiarization and to complete radiological worker qualification. Additionally, a resident inspector (RI) attended portions of the Material in Surveillance conference, which focuses on the long-term storage of special nuclear materials, hosted by the Savannah River National Laboratory.

Saltstone Construction: While personnel were performing welding activities on a pipe bridge at Saltstone Disposal Unit 10, slag fell from where they were working in a lift and caught grass and coconut matting on fire at ground level. The welders immediately stopped work and lowered their man lift to extinguish the fire using water bottles. The assigned fire watch was overseeing another co-located work activity and did not notice the fire until they heard the welders yelling and fighting the fire themselves. The fire watch chose to use water bottles and an ice bucket to stop the fire in lieu of the approved fire extinguisher located at the scene. No personnel were injured, and no equipment was damaged during this event.

H-Area New Manufacturing (HANM): HANM is replacing equipment for their hot-cold nitrogen system. The work in these rooms is in contamination and airborne radioactivity areas, which require workers to wear plastic suits supplied with breathing air. In the past three weeks, there have been five plastic suit failures during this work. One of these was due to the plastic suit getting caught on scaffolding, another by a failure at a seam, and three occurred when the strings holding the plastic suit pants broke. During each of these issues, radiological protection did not detect elevated airborne activity or find any removable contamination. In response to the first issue, facility personnel have widened the scaffold platform. They also performed an extent of condition review on other plastic suits but did not identify a similar issue with weak seams. Radiological protection personnel also demonstrated donning and doffing of plastic suits to construction personnel. The RI observed personnel at the informal pre-job brief and safety personnel emphasizing proper donning of plastic suits and peer checking.

H-Canyon: An RI performed a field observation of the Fast Critical Assembly (FCA) fuel dissolution campaign. Starting with the receipt of FCA material, the operators and first line manager demonstrated excellent procedural compliance throughout the evolution. The team methodically and efficiently unpackaged and charged the FCA material into the 6.3D electrolytic dissolver without issue. The crane operator displayed good level of knowledge, communication techniques, and operating proficiency while removing the charging devices and re-installing the cell cover. While exiting the radiological boundary area, the personnel contamination monitor (PCM) alarmed due to detecting radioactivity on an operator's hard hat, which was later determined to be caused by radon. The operator removed their hard hat and cleared the PCM but failed to frisk the hard hat for contamination or contact radiological control personnel prior to exiting the area. The resident inspector notified management, who quickly corrected the issue.