

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 9, 2024

TO: Katherine R. Herrera, Acting Technical Director
FROM: L. Lin, Z.C. McCabe, and E.P. Richardson, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending February 9, 2024

F-Tank Farm: Upon exiting a radiological buffer area (RBA), a construction worker alarmed the personnel contamination monitor (PCM) due to contamination on their boot. Further surveys revealed 1,000,000 dpm/100cm² β/γ and no detectable alpha contamination on the boot. After removing their boot (which could not be decontaminated enough for release), the construction worker cleared the PCM three times before being released. Three other workers in the same location were verified clear of contamination. F-Tank Farm personnel have conducted a thorough investigation and radiological protection inspectors (RPI) have conducted extensive surveys. To date, they have found one small spot that probed 2,000,000 dpm/100cm² β/γ and no detectable alpha in the contamination monitor trailer. They have not been able to identify the source of the contamination, which analysis identified as Cs-137. Facility management directed further investigation and surveys following the issue investigation meeting.

Defense Waste Processing Facility (DWPF): Over the last two weeks, operations personnel plugged a glass waste canister prior to it reaching the required fill height and three personnel at DWPF were injured while not wearing the required personnel protective equipment (PPE). Two construction workers received head injuries while not wearing hard hats, and an operator received a hand laceration after removing their gloves to improve dexterity while removing a locking device. These events occurred while the facility continues its sustained period of deliberate operations.

Savannah River National Laboratory (SRNL): SRNL personnel completed their Facility Self-Assessment (FSA) to determine SRNL's readiness to implement Revision 3 of the Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR). The FSA identified six findings and five opportunities for improvement. Following the briefing of the FSA results, SRNL personnel determined that they are ready to initiate the Implementation Verification Review on February 20. This version of the DSA and TSR represents significant changes to the SRNL safety basis, including identifying new and upgrading existing controls.

HB-Line: HB-Line management was notified by the Central Counting Facility of elevated air sample filter paper readings from January 19-24. During the investigation, personnel discussed that the RPIs performing continuous air monitor (CAM) operability checks on January 23 and 24 did not follow procedures to notify their first line manager (FLM) of readings above 4 DAC-hr or control access. The CAM alarm setpoint is at 10 DAC-hrs and had alarmed between January 23 and 24. The RPI performing operability checks the morning of January 24 acknowledged the alarm, saw that the air sample readings had decreased (but was still above 4 DAC-hrs), and entered the room with the alarmed CAM to perform habitability surveys and change out the filter paper. During the issue investigation, personnel indicated that there was a history of elevated air sample readings. The facility has had weak supply ventilation since one of three booster fans failed back in 2020, which was further exacerbated after outage work in 2022, and the facility had not prioritized repairs to the booster fan.