

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 6, 2020

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** M. T. Sautman and Z. C. McCabe, Resident Inspectors  
**SUBJECT:** Savannah River Site Activity Report for Week Ending November 6, 2020

**Salt Waste Processing Facility (SWPF):** The Startup Review Board approved increasing the nominal feed concentration from 0.2 Ci/gal to 0.6 Ci/gal. A resident inspector (RI) observed the first transfer from tank farms that will not be diluted. A RI also observed the first transfer of strip effluent to the Defense Waste Processing Facility.

**Savannah River National Laboratory:** Routine air monitoring detected elevated airborne radioactivity levels for Th-232 decay chain daughters, but not Th-232 itself inside a laboratory (and nearby) where uranium and thorium oxides are heated in a furnace. Based on surveys and an investigation, the cause of the airborne radioactivity is suspected to be related to hurricane-related flooding that may have dissolved water soluble, legacy contamination combined with a loss of ventilation. Bioassay and chest counts did not identify any uptakes by workers in the lab.

**Oral Interviews:** A RI observed two oral interviews for SOMs for F-Area (235-F, F/H Laboratory, F-Canyon). An oral interview is a slightly less formal oral exam than an oral board. The conduct of both interviews was satisfactory and grading reflected observed performance. A RI also observed a re-board for a shift operations manager at Savannah River Tritium Enterprise (SRTE). The questioning revisited some areas of weakness from the candidate's previous board, and the candidate's responses revealed that the remediation plan was successfully executed.

**K-Area:** Before introducing an unvented container of plutonium oxide into the K-Area Interim Surveillance (KIS) Vault, the Technical Safety Requirements (TSR) require personnel to verify there are no other unvented containers and that the total amount of fissile material is below the TSR limit. These requirements are implemented as prerequisite steps that direct the operator to a form with a running total and status of material and containers in the KIS Vault. Both the prerequisite steps and the form have a location for the operator and a verifier to sign. Prior to beginning the prerequisite steps, the operators were discussing the process and TSR requirements with trainees. In doing so, the operators calculated that introducing the unvented container was below the TSR limit but did not document it. Later, during the executing of the TSR prerequisite steps, the operators verified and documented that there was no other unvented container in the KIS Vault. The operators then signed the inventory prerequisite step as complete and verified, but did not perform the calculation or document it in the form. The error was noticed the following day by another operator. K-Area personnel determined that this did not constitute a TSR violation because the requirement was fulfilled, albeit undocumented.

**SRTE:** Due to the erection of two scaffoldings in H-Area New Manufacturing, the facility was in a limiting condition for operation for obstruction of the sprinkler system in two rooms, which required two separate fire patrols. The fire protection engineer (as permitted in the safety basis) set the frequency of 4 hours for one room and 6 for the other. One operator inadvertently documented the completion of one of the patrols on the incorrect form. The error went unnoticed by several reviewers until a shift manager noticed the error the following shift.