DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 7, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: A.Z. Kline, L. Lin, Z.C. McCabe, and E.P. Richardson, resident inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending October 7, 2022

Tritium: While conducting a monthly surveillance on a tritium air monitor to verify operability of an alarm light, an operator inadvertently crossed a contamination area boundary with no protective clothing. The Radiological Protection Department (RPD) took appropriate actions, and no contamination was detected on the individual. At the issue investigation, management discovered that operators normally verify the alarm by looking for illumination on the adjacent wall rather than verifying that the physical alarm light is lit. Management noted that verifying operability of the tritium air monitor by observing illumination on an adjacent wall is not an acceptable practice. Operations is performing an extent of condition review and surveillance procedures are being revised to clarify the physical verification requirement.

Defense Waste Processing Facility (DWPF): The resident inspectors (RI) conducted a review of operator aids at DWPF and identified several issues. Multiple operator aids in the logbook had inconsistencies between the revision of the approval sheet, record index, and the approved version. A monthly review of the operator aid logbook is required and has not been completed since April 2022. Additionally, there are unauthorized operator aids in the field as well as some that have been documented as removed that are still active. DWPF management recently completed a self-assessment on operator aids identifying similar issues and is developing corrective actions.

H-Canyon: While performing contamination monitoring following rounds, an operator caused a personnel contamination monitor to alarm twice on first level. The operator donned rubber overshoes and transited to the RPD office on first level to notify RPD of the alarm condition. The operator's shoes probed at 15,000 and 30,000 dpm/100cm^2 β/γ. RPD personnel performed additional surveys and identified the source on the second level, which probed 4,000,000 dpm/100cm^2 β/γ. Domestic water from a leaking valve on third level became contaminated as it passed through an expansion joint and dripped onto the floor on second level. RPD personnel took all appropriate actions following notification and no further spread of contamination occurred.

K-Area: On 10/5/22, an RI observed the conclusion of one downblend evolution and the commencement of another. The can removal evolution was performed professionally with no issues noted. During preparation for the next batch, two glovebox gloves required replacement due to dose rate concerns. An operator obtained the required materials and assembled the new gloves without consulting the Use Every Time procedure. Following questioning, they verified compliance and updated the procedure to match current conditions. The subsequent glove replacement was completed satisfactorily.