

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 2, 2023

**TO:** Katherine R. Herrera, Acting 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 June 2, 2023

**Defense Waste Processing Facility (DWPF):** DWPF operations personnel failed to perform three Technical Safety Requirement (TSR) surveillances within the required 12-hour periodicity to ensure the melter off-gas flammability parameters were within limits. During the subsequent shift, an operator performed the three surveillances and in addition performed a 24-hour loop-check surveillance. However, the flow instrument loop-check failed, rendering the flow indicators inoperable. While reviewing the round sheets, the Shift Operations Manager (SOM) discovered the missed surveillances were inappropriately marked “N/A” on the previous shift, which was not noticed during the first line manager review. The SOM entered the appropriate Limiting Condition for Operation (LCO) and placed the melter into standby mode. DWPF management determined that they completed the TSR surveillance for verifying the melter flow rate satisfactorily before entering standby. The resident inspectors disagree that the surveillance was performed satisfactorily since the flow indicators were declared inoperable. DWPF management put a compensatory measure in place that all TSR surveillances not performed or marked N/A must be independently reviewed by the SOM or shift technical engineer. Another recent issue involving operator rounds and supervisory reviews occurred when operations personnel failed to enter an LCO for the safety grade nitrogen system (see 2/17/2023 report).

**Savannah River Tritium Enterprise (SRTE):** SRTE personnel conducted operational pause meetings this week to refocus the workforce on disciplined operations after a series of operational issues. For the third time in May, SRTE personnel failed to complete a fire patrol within the required time. The most recent fire patrol issue included a 2.5-hour delay in start time for a 4-hour LCO-required fire patrol. In a reversal of the position from last week (see 5/26/23 and 5/19/23 reports), SRTE management determined that the completion of subsequent periodic fire patrols after the initial establishment is considered an LCO required action. Given that this most recent issue went beyond the 25% grace period, SRTE personnel determined this event constituted a TSR violation. SRTE personnel are preparing for an issue investigation.

SRTE declared a Potential Inadequacy in the Safety Analysis due to inadequate implementation of a safety basis control supporting the use of the mechanical tester that was implemented in 2021. SRTE personnel determined that a positive Unreviewed Safety Question exists.

**Tank Farms:** Maintenance mechanics were assisting with the removal of a submersible mixing pump from Tank 15 in an airborne radioactivity area (ARA). After proceeding to the exit for the radiological buffer area, the personnel contamination monitors alarmed for both mechanics. Radiological protection inspectors found a maximum of 20,000 dpm  $\beta$ - $\gamma$  on one mechanic. The mechanic was successfully decontaminated, and no contamination was found outside the hut. During the issue investigation, Tank Farms personnel discovered two potential contributors to the contamination: inadequate radiological controls were established, and workers did not follow appropriate doffing protocol for anticontamination clothing upon exiting the ARA.