

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 23, 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 23, 2023

Staff Activity: D. Montierth of the Board's technical staff was on site this week to support the resident inspectors (RI).

F-Tank Farms: The RIs and technical staff member observed the annual F-Tank Farms evaluated exercise. The scenario involved a vehicle collision and two B-25 waste containers catching fire and releasing radiological material. The RIs observed the exercise from the incident scene and the technical support room. During the controller debrief, SRMC personnel discussed a communications issue regarding whether the simulated injured person was transported to site medical or to an offsite hospital. SRMC and DOE-SR are in the process of evaluating the performance.

Savannah River Tritium Enterprise (SRTE): SRTE personnel conducted a common cause analysis of the operational issues that occurred in May, including three instances of failing to complete fire patrols within the required time, the recording of erroneous oxygen monitor readings, and a Potential Inadequacy in the Safety Analysis that resulted in a positive unreviewed safety question (see 6/2/23 and 6/9/23 reports). The common causes identified were a lack of knowledge and less than adequate communications. SRTE personnel presented these causes to the management team. SRTE management then listed corrective actions that had been taken (which were determined prior to the completion of the causal analysis) and did not identify any new corrective actions.

Salt Waste Processing Facility (SWPF): A maintenance mechanic was performing work to repair a leaking pipe nipple on a barrier fluid tank when the pipe nipple broke off and the upstream assembly disconnected from the system. To perform the work, operations had installed a complex lockout on the system, which included locking open the vent valve to prevent the accumulation of pressurized air. When the assembly disconnected from the system due to the failed pipe nipple, the locked open valve was also disconnected. The mechanic was not exposed to any hazardous energy since the system could not hold any pressure due to the broken pipe nipple. It was discovered at the post job that even if the pipe nipple did not fail, the maintenance mechanic would have still removed the locked open valve to complete the work due to the layout of the system. The lockout writer, work manager, and maintenance workers did not recognize the work scope would impact the complex lockout prior to conducting the work.

L-Area: The RIs attended multiple preparatory activities as L-Area personnel worked towards relieving pressure in two drums of nuclear waste originating from Idaho National Laboratory. Each event, including the facility radiological action team, formal pre-job brief, and informal pre-job brief, were conducted professionally. During final preparations, the team recognized that their breathing air hoses were a few feet shorter than needed to perform all the surveys required to move the drums out of the radiological hut. They called a timeout and plan to complete the work next week after correcting the identified issue.