

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 20, 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 20, 2020

Savannah River National Laboratory (SRNL): An Environmental, Materials, and Energy Sciences (EMES) manager unknowingly picked up a reportable quantity of heavy water from N-Area and transported it to A-Area where they initially left the sample in the Principle Investigator's (PI) office with a Nuclear Materials Custodian. Shortly thereafter, the PI in consultation with a trained Nuclear Materials Custodian decided to move the heavy water into a locked location inside the laboratory radiological buffer area, which is also not an approved location for storage of such material. The two individuals also reached out to a Section Nuclear Materials Coordinator who contacted SRNL Safeguards and Security and the EMES manager that realized the issue and called a timeout. The issue investigation identified a plethora of errors, oversights, and procedure violations that contributed to the many issues identified. For instance, the two instances of improper storage of the heavy water, improper transportation to SRNL without proper documentation, the improper transfer of material within SRNL, and failing to include the proper groups at several instances. Once the individual from Safeguards and Security identified the issue, it appears that the persons involved took the appropriate actions to barricade the area, inform the necessary personnel and update the nuclear material inventory.

Savannah River Tritium Enterprise (SRTE): The resident inspector (RI) observed the first replacement of the two safety significant air intrusion check valves, which is a Technical Safety Requirement surveillance requirement implemented earlier this year. The two check valves perform the safety function of preventing oxygen from entering the TEF process lines and forming a flammable mix. The surveillance requires both check valves be replaced every two years. The RI observed the task preview, pre-job brief and replacement of the check valves. Each check valve replacement was directed by two independent and identical procedures despite the valves being replaced within minutes of each other as expected. Although the evolution was successful and without significant issues, the RI believes that the procedure execution suffered due to the duplicative efforts needed to complete the two identical procedures.

The RI observed a shift operations manager oral board. The RI believes the grading of the board was appropriate and provided feedback to SRTE management regarding the conduct.

Salt Waste Processing Facility: Caustic side solvent extraction has been on hold the last two weeks as workers troubleshoot and repair the salt solution feed pumps.

Building 235-F: SRNS plans to submit the next revision to the safety basis in April. SRNS anticipates completing deactivation in January 2023.

Covid-19: Reflecting nationwide trends, the number of positive cases at SRS has been increasing. Since last Thursday, the number of positive cases has increased from 686 to 735 (Thursday's total). SRS is preparing to start onsite testing and is encouraging workers to telework after holiday gatherings for fourteen days.