

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 4, 2018

TO: S. A. Stokes, Technical Director
FROM: Z. C. McCabe, Resident Inspector
SUBJECT: Savannah River Site Activity Report for Week Ending May 4, 2018

Savannah River National Laboratory (SRNL): Research and Development (R&D) and Research Operations Division (ROD) at SRNL continued their safety pause that began on April 26 (see 4/27/18 report). The pause prohibits all hands-on field and laboratory activities with the exception of certain essential tasks such as ROD activities to maintain compliance with the SRNL safety basis. The R&D activities deemed essential require approval from the Deputy Laboratory Director while in the pause. The resident inspector attended several safety pause meetings for different R&D groups. The goal of these meetings was to convey the seriousness of the pause, the lessons learned from recent events, the expectation that all SRNL personnel refocus to sustain a safe work environment, and solicit employee feedback. The quality of the lessons learned discussions during these meetings varied greatly. While the discussions during some of these meetings were detailed and included specific lessons learned that were then relayed back to the group at the meeting, other group's lessons learned discussions did not include much detail regarding recent events beyond cursory information.

The resident inspector observed two issue reviews concerning events that occurred before the safety pause. The first involved an independent evaluator identifying that two individuals did not have the proper filter paper in place for their personnel air sampling device, which is worn on the inside of a plastic suit and measured if there is an issue. More notably, the other issue involved an engineer performing hands-on work by beginning to open an electrical junction box. As part of troubleshooting efforts, the engineer unscrewed the fasteners of the cover when a "popping" noise occurred. Those involved stopped working and requested a "Dangerous Unsafe Condition" tag from the shift manager to place on the box, but they failed to mention the "pop." SRNL management were informed days later during a review of the radiological protection log book.

Building 235-F: L. Lin of the Board's technical staff observed the annual evaluated exercise at Building 235-F. The scenario consisted of a transport truck and a refueling truck colliding, causing the truck transporting a single transuranic waste (TRU) drum to catch on fire and causing the lid on the TRU drum to eject.

Tritium Facilities: The procedure for replacing the cell in a safety significant glovebox oxygen transmitter has a step requiring second person verification (SPV) that the new cell is installed correctly. During this step, one operator was on a ladder replacing the cell in a glovebox. The operator verbally confirmed the cell was aligned correctly and the second operator signed for both of them. When NNSA personnel questioned whether this was really SPV, the operator indicated that this step could not be verified in the usual way since only one person could be on the ladder. Instead, they rely on verbal confirmation and training to ensure the new cell is installed correctly.