

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 15, 2024

TO: Timothy J. Dwyer, Technical Director
FROM: L. Lin and E.P. Richardson, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending November 15, 2024

DNFSB Staff Activity: Board staff members H. Dacayanan and W. Dumayas, along with the Board's Savannah River Site NNSA Cognizant Engineer, M. Randby, were onsite to support the staff review of the Savannah River Tritium Enterprise (SRTE) Co-Located Worker Dose Reduction initiative. M. Randby walked down K-Area, which is now under NNSA oversight.

K-Area: While an operator was conducting plutonium repackaging operations on a 9975 container in the Crane Wash Area, another operator brought a second full 9975 container into the room. This caused the total amount of plutonium metal to exceed the Technical Surveillance Requirement (TSR) inventory control limits resulting in a TSR violation. A nuclear and criticality safety engineer (N&CSE) observing the evolution brought up the initial concern of repackaging two 9975's simultaneously, but the operators and first line manager concluded that it was acceptable and continued working on the first 9975 without taking a time out. The second container was never opened. The N&CSE engineer consulted the shift operations manager and together they determined that the facility violated the TSRs and stopped repackaging operations. The issue investigation team determined that unclear safety documentation and insufficient operations level of knowledge contributed to this violation. The facility is performing a root cause analysis for this event.

Savannah River National Laboratory (SRNL): During a review of information in the Electronic Material Inventory Tracking System (EMITS), management determined that material entered into the previous inventory control program did not contain all relevant isotopic data and was thus not included when uploaded into EMITS during startup in 2020. The non-recorded isotopes accounted for 39 plutonium equivalent curies, which management directed to be recorded in EMITS. At that point, the facility exceeded its inventory control limits and declared a TSR violation. All isotopic movements are suspended in the facility while a path forward is determined. The facility is performing a root cause analysis for this event.

Defense Waste Processing Facility (DWPF): Following over one year of improvement efforts, DWPF management officially exited deliberate operations this week. They intend to retain many of the additional oversight measures established during deliberate operations as they return to normal operations. The final decision to exit was made based on sustained improvements shown during evaluations of personnel performance during two weeks of senior supervisory watches. The resident inspectors and Board staff members performed an on-site review of DWPF from 9/16/2024 to 9/20/2024 and agree that DWPF has made progress in improving conduct of operations but remain concerned with the overall performance of the facility.

H-Canyon: Operations management declared a Potential Inadequacy in the Safety Analysis regarding the storage of transuranic waste drums in H-Canyon Outside Facilities. The safety basis does not account for two scenarios and therefore may not report all consequences and controls for external event design basis accidents.