DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 12, 2021

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 February 12, 2021

K-Area: Revision 15 of the K-Area DSA implemented a new control that requires K-Area personnel verify that the new hydraulic press in the Destructive Evaluation (DE) Room Glovebox is de-energized prior to introducing a pressurizable container it into the DE Room. Typically, the pressurizable containers K-Area personnel handle inside the DE room are 3013 containers; however, this Technical Safety Requirement (TSR) surveillance applies to the less frequently handled 9975 shipping package's Primary Containment Vessels (PCV) being brought into or being sealed in the DE Room. The introduction of 3013s and PCVs into the DE Room are governed by separate procedures. Prior to January 2021, the PCV procedure had not been used for years, but was updated as part of the implementation of revision 15 of the K-Area DSA. Thus the procedure was subjected to several reviews including an Unreviewed Safety Question Review, a Facility Self Assessment, and an Implementation Verification Review as well as a significant revision which triggered another full review prior to the facility being used to introduce a PCV into the DE Room on January 24.

This week K-Area engineers were reviewing the PCV procedure and noted that the procedure did not include a step to verify that the hydraulic press in the glovebox is de-energized. As such, there was no record of K-Area personnel completing the TSR surveillance prior to introducing the PCV into the DE Room on January 24. As a result K-Area declared a TSR violation. At a fact finding meeting K-Area personnel identified several corrective actions in addition to calling a time-out for DE Room work and placing the procedure on administrative hold. The actions identified include investigating whether operators and reviewers understood that a PCV is considered pressurizable and that the control applies to the DE room rather than the glovebox.

Savannah River Tritium Enterprise (SRTE): A litany of errors and poor conduct of operators surrounded SRTE personnel tasked with removing a lockout and completing a post-maintenance test on a recently replaced valve. The shift operations manager (SOM) tasked two operators to complete the work without a pre-job brief. One of the operators was no longer qualified for Hazardous Energy Control work but was permitted to sign off on steps under the supervision of a qualified operator. The SOM requested assistance from the system engineer, but did not wait for them to arrive and confirm the restoration sequence because he believed he understood the system. The two operators entered the room, an Airborne Radiation Area/Contamination Area, without signing onto the proper Radiological Work Permit (RWP) and ignored the posting that required them to contract Radiological Protection Department (RPD) prior to entering the room. The tele-tower used to access the elevated valves had not been inspected prior to use. When the system engineer arrived to the control room and informed the SOM of the proper sequence, the SOM knocked on the door to the room and requested the operators to stop, but did not call a time out. Once RPD arrived, they learned that the operators had not signed onto the proper RWP and failed to call a time out, but rather the RPD technician signed them in personally without confirming they understood the requirements prior to doing so. SRTE management are developing corrective actions.