DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 16, 2022

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 December 16, 2022

Site Interruption of Power: The resident inspectors (RI) and cognizant engineer participated in a fact-finding meeting regarding the 11/30/22 interruption of electrical power (see 12/2/22 report). The main cause of the event was an electrical operator performing actions outside of the procedure and manipulating the incorrect breaker while the first line manager (FLM) investigated an abnormal indication on a recently replaced breaker. The two breakers being visually similar and located in close proximity, along with the electrical operator having his vision obscured by an arc flash helmet, contributed to the incident. The team failed to call a timeout multiple times throughout this event, including after the abnormal indication was received and after the main breaker was opened, which resulted in a significant portion of the site losing a main power supply. After calling dispatch, the FLM gave direction to re-shut the main breaker to restore power without notifying the Emergency Duty Officer or the affected facilities, which could have caused damage to equipment.

Solid Waste Management Facility: A low-level waste B-25 container, weighing approximately 2000 pounds, fell 12 feet to the ground when a securing rope attached to the lift truck snagged a protruding bolt on the lid as the driver was backing away from the container array. Based on the elevation of the container lid, the driver and multiple spotters did not notice the issue until the container was already falling. No personnel were injured, and no contamination was spread as the container maintained its integrity, receiving only a few surface scratches. Following a time out and appropriate evaluations, the container was righted, inspected, and placed back in its storage location. The subsequent issue investigation was conducted professionally and developed an adequate suite of corrective actions to prevent recurrence.

Savannah River Tritium Enterprise (SRTE): SRTE personnel convened an issue investigation regarding an error executing a routine procedure that resulted in a blown rupture disk. The operator involved marked a step to open a valve as complete through place keeping (a SRTE management expectation, not a requirement) and then updated the status control scroll without manipulating the valve. Although the impacts of the event were minimal, SRTE personnel's investigation was lacking. For instance, the investigation team did not inquire about the conduct and content of the pre-job brief or the activities of the operator just before the error was made. When asked, SRTE personnel revealed that there was no pre-job brief, only a short conversation between the operator and Shift Operations Manager, and that the operator had just returned from lunch when they made the error.

F-Area: A tabletop emergency preparedness drill was conducted that consisted of a transport truck with TRU drums colliding with another vehicle, resulting in a fire and radiological release. The players and controllers made improvements from the last drill performed at F-Area (see 11/11/22 report). The shift operations manager better utilized control room operations personnel and controllers took coaching opportunities. At the debrief after the drill, players and controllers noted improvements that could be made and additional training that could be provided.