

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 7, 2024

**TO:** Timothy J. Dwyer, Technical Director  
**FROM:** L. Lin, Z.C. McCabe, and E.P. Richardson, Resident Inspectors  
**SUBJECT:** Savannah River Site Activity Report for Week Ending June 7, 2024

**K-Area:** The disassembly of 3013 containers requires a high level of precision due to the low tolerance in the assembly of the outer, inner, and convenience containers. During plutonium down-blending operations, K-Area operations personnel cut an inner 3013 container from Rocky Flats at the incorrect location. This error resulted in their inability to burnish the inner container to allow for removal of the convenience container through normal means. When the operators identified the issue, they stopped and notified the appropriate personnel. K-Area management convened an issue investigation meeting to discuss the event. The operator that performed the cut at the incorrect location utilized the appropriate procedure, which directed them to perform the cut 3/8-1/2 inch below the top of the container. However, the operator measured from the top of the weld on the inner container rather than the top of the container. Discussions during an issue investigation revealed that the two operators performing the hands-on work, including the cutting activities, had not worked with 3013 containers from Rocky Flats previously. The investigation was thorough and determined a series of corrective actions. Notably, K-Area management are evaluating potential improvements to operations training to provide improved mock-up training for the various sources of 3013 containers.

**Site Exercise:** The resident inspectors (RI) observed the site annual site emergency preparedness exercise. The event simulated a radiological release from a vehicle crash into the Criticality Control Overpack Characterization and Storage pad and subsequent fire at K-Area. The scenario included multiple injuries, a fatality, and personnel contamination. As intended, the scenario exhausted radiological protection resources at K-Area, who requested and received support from H-Canyon and L-Area. The exercise also included participation and observations from off-site organizations, including two local hospitals. The RIs and the Board's Associate Technical Director for Field Operations observed the drill from the K-Area control room, incident scene, incident command post, SRS Operations Center, technical support room, and emergency operations center. SRNS and DOE-SR will develop an After-Action Report using the new weighted grading system for objectives.

**Enterprise Assessments (EA):** The extent of condition review stemming from the potential inadequacy in the safety analysis (PISA) regarding the effects of boiling liquid expanding vapor explosions in the safety grade nitrogen system at the Defense Waste Processing Facility resulted in PISAs at other facilities at the site that also have liquified argon or nitrogen gas storage systems near safety systems, structures, or components (see 5/17/24 report). The Salt Waste Processing Facility, Tritium Extraction Facility, and H-Area Old Manufacturing PISAs are all awaiting an unreviewed safety question determination.