

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 27, 2016

**TO:** S. A. Stokes, Technical Director  
**FROM:** M. T. Sautman and Z. C. McCabe, Site Representatives  
**SUBJECT:** Savannah River Site Weekly Report for Week Ending May 27, 2016

**Solid Waste Management Facility:** An operator performing rounds identified that 8 to 10 ounces of liquid leaked from a welded stainless steel cylinder into a portable spill dike. The contents included a trap containing both mercury and tritium. After workers evacuated the area, the SRS Hazardous Material Team approached the spill scene in bunker gear until they detected airborne tritium concentrations that warranted plastic suits. They left the building doors open to promote dissipation of tritium and workers set up barricades at 100 m (since reduced). Subsequent bioassays of personnel who were near the spill did not identify any tritium uptakes. SRNS is making plans for reentry.

**Emergency Preparedness (EP):** The controllers of last week's annual site exercise identified a number of relatively minor issues related to communication and notifications, equipment, performance of assigned roles, and drill control. There were not any of the major drill control or player performance issues that have been observed in previous years, despite this being one of the more complicated site exercises conducted at SRS. This reflects the effect of corrective actions to improve the number, challenge, and rigor of drills as well as increased resources and management support provided to the EP program. Additionally, SRNL conducted their annual evaluated exercise and the timeliness and rigor of the radiological response was noticeably better than that seen in last year's site exercise (see 11/20/15 report). SRR also conducted a drill at the Defense Waste Processing Facility involving a fire on the shielded canister transporter as part of a lessons learned from the Waste Isolation Pilot Plant's fire. However, workers refused to discharge the fire extinguisher because they mistakenly believed they had to have safety glasses and leather gloves because that is what they wore when they went through earlier training with fire extinguishers.

**L-Area:** The L-Area shift operations manager (SOM) failed to change the mode of the facility from operations to shutdown mode at the end of a shift. The mode change is done through execution of a procedure that includes steps to change the facility mode in an electronic database, record the mode change in the SOM log, and transfer command of the facility to the K-Area SOM. The L-Area SOM only performed the turnover to the K-Area SOM.

**K-Area:** Upon investigating the recent failure of cement asbestos paneling (see 5/20/16 report), SRNS personnel determined that the paneling did not meet Performance Category 2 wind loading requirements. The panels are part of the Assembly Area structure that are required to provide the safety significant function of protecting nuclear material inside the facility. This new information has caused SRNS to question if the Assembly Area can meet its intended safety function; therefore, SRNS appropriately entered the potential inadequacy in the safety analysis (PISA) process. The proposed compensatory measures include prohibiting staging and storing nuclear material in the Assembly Area. Additionally the compensatory measures will prohibit initiating a transfer of material through and evacuating the affected areas and placing other peripherally affected areas within the hardened structure is a safe state during a severe weather warning. Furthermore, the SS panels were not included in the Structural Integrity Program for the K-Area facility. The SIP is an administrative control that is required to provide reasonable assurance that degradation of SS and safety class components are detected before the function of the structure, system, or component is compromised.