

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 17, 2013

**TO:** S. A. Stokes, Acting Technical Director  
**FROM:** M. T. Sautman and D. L. Burnfield, Site Representatives  
**SUBJECT:** Savannah River Site Weekly Report for Week Ending May 17, 2013

**Recommendation 2012-1:** DOE conducted an emergency drill simulating a fuel truck crash into Building 235-F, damaging a wall and igniting the fuel tanks. In addition, the crash was assumed to breach a ventilation plenum, although the postulated amount of contamination released was relatively minor because the breach occurred between an uncredited bank of high efficiency particulate air filters (HEPA) and the sand filter. The Area Emergency Coordinator (AEC) classified this as a site area emergency, evacuated 235-F, and instituted a “remain indoors” protective action across F-Area. The entire workforce at the Mixed Oxide Fuel Fabrication Facility (MFFF), Waste Solidification Building (WSB), F/H Laboratory, 235-F, and the F-Canyon complex participated; F-Tank Farms did not. MOX treated this as an assessed drill per the Recommendation 2012-1 implementation plan, whereas WSB used this as their coached drill. Meanwhile, the rest of F-Area used this drill primarily to validate some revised emergency procedures in preparation for conducting both coached and assessed 235-F drills later this year. The Fire Department did not participate in this drill, and the radiological field response was very limited.

In response to previous Board staff feedback, SRNS evaluated the suitability of their structures for sheltering during a radiological release. The facilities that were deemed unsuitable are now posted as such. In addition, the contractors have been trying to ensure that their workers understand the correct response to take during a radiological release. With a few minor exceptions, the F-Area workforce sheltered appropriately. The sound quality of the public announcement speakers continues to be an issue in certain locations. Afterwards, the Board’s staff provided F-Area management several comments on their draft emergency procedures. Many of the comments dealt with how the AEC was to use a procedure with 26 attachments, and how the procedures handle protective actions when the scenario involves more than one issue. For example, the procedure response for a fire plus a radiological release is somewhat murky when a fire normally results in an evacuation and a radiological release trips a “remain indoors.”

**Building 235-F Diesel Generator:** SRNS placed the 292-2F diesel generator out of service when it failed to start during a periodic load test. They subsequently found corrosion on the contacts for the fuel solenoid valve and SRNS entered the Limiting Condition of Operations (LCO), which requires them to repair the diesel immediately. The diesel repair vendor ordered the necessary repair part when an available spare was found to be the wrong solenoid. SRNS should have it available for replacement on Monday.

**Tank Farms:** During a normal monthly radiation survey inside the Tank 44 HEPA Filter 4 structure, radiological controls operations (RCO) noticed an abnormally high dose rate just below the marked radiation survey point. RCO took contamination surveys and found elevated contamination readings (3 million dpm  $\beta/\gamma$ ) at the HEPA filter housing. Additional surveys found no contamination outside the structure and no airborne contamination. Tank Farms personnel posted the Area as a high contamination/airborne radioactivity area (HCA/ARA.) No personnel were contaminated, and a whole body count confirmed that the RCO technician was not internally contaminated. Tank Farms engineering personnel are trying to determine the source of the contamination.

**Maintenance:** The Site Reps met with SRNS to discuss the SRNS maintenance program. As expected, corrective maintenance backlogs are worsening. After eliminating delinquent preventive maintenance (PM) work orders earlier this year, SRNS is now seeing an increase, including those for safety class and safety significant equipment. Furthermore, both SRNS and SRR have reversed their earlier positive trends of decreasing PM deferrals and are now seeing an increase in PM deferrals, especially in safety related equipment.