

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 16, 2014

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman and D. L. Burnfield, Site Representatives
SUBJECT: Savannah River Site Weekly Report for Week Ending May 16, 2014

Emergency Preparedness: The staff observed the 2014 site emergency preparedness exercise, which also satisfied a Recommendation 2012-1 Implementation Plan commitment. In the scenario, severe weather shut down purge and annulus fans in F-Tank Farms and the 235-F emergency generator started. Later on, a delivery truck driver had a seizure and crashed into 235-F. This impact caused two nitrogen cylinders to become missiles, one of which enters a maintenance area releasing residual contamination which leaks out of the building breach. Several aspects of the response were better than previous exercises, especially recovery planning, however, the response would have benefited from a greater emphasis on identifying and tracking priority actions. For example, few actions were listed in the Emergency Operations Center's (EOC) action list, and their status was not discussed during EOC briefings, even when actions were highlighted in red. In the F/H Laboratory control room, the Area Emergency Coordinator's frequent briefings and displays were focused on sharing new information, but there was almost no followup to ensure that abnormal operating procedures and emergency responder checklists had been completed. The location of the incident command post was questionable in light of the distance from 235-F and varying wind direction, the means used to conclude there was no airborne release, and the initial dose estimates. Finally, there was some confusion at the incident scene on how to regain contamination control after the emergency medical technicians loaded a critically injured and contaminated patient into an ambulance before the decontamination zones were established.

Training: The staff met with SRNS training managers to discuss their site training improvement plan. SRNS is changing how they develop and grade written exams after an extent of condition review of comprehensive written exams for certified/qualified positions (see 4/25/14 report) identified additional cases of improperly graded exams at HB-Line and H-Canyon. In four cases at H-Canyon, individuals lost their qualifications when the exams were rescored (this represents ~1% of the exams). Other improvement actions address a new organization, hiring several new instructors and managers, dedicating time for continuing training for operations personnel, setting up partnerships and internships with local technical schools, and plans to rotate operations personnel through the procedures and training organizations.

HB-Line/H-Canyon: A crane will be used to transport material to the roof of H-Canyon to support HB-Line upgrades. Engineers are trying to determine why one of the crane's outriggers sunk into the asphalt when the crane operator tried position the crane. The site rep also requested a meeting with construction services' work planners because this job's work order was not written in accordance with standard conduct of operations practices.

Solid Waste Management Facility (SWMF): For several years, SRNS has been dealing with residual contamination from an earlier drum leak on storage pad 16 (see 7/30/2010 report). This week, SWMF personnel pumped contaminated water from the pad's sump and attempted to solidify the water in 85-gallon drums using an absorbent. The bung on these drums had been replaced with a filter to support an earlier activity. Technicians had also verified the drums were clean before reusing them. After mixing the water with absorbent and moving the drums, SWMF personnel detected contaminated water (≤ 42 dpm $\alpha/100$ cm²) on top of two drums. At the fact finding, an operator stated that he had observed water drip from the filter. SRNS is investigating whether exposing the absorbent to temperatures outside the manufacturer's recommendation may have affected the absorbent's effectiveness. The site rep has requested a meeting with quality assurance personnel to discuss NQA-1 storage requirements.