

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 19, 2015

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 June 19, 2015

Recommendation 2012-1, Savannah River Site Building 235-F Safety: Action 1-4 of the implementation plan for this recommendation requires DOE to complete a Readiness Assessment (RA) for initiation of deactivation activities in Plutonium Fuel Form Facility (PuFF) cells 6 through 9 and implement the Deactivation Basis for Interim Operation (BIO). John Mercier and the site representative reviewed the adequacy of this week's portion of the RA, which will continue into next week. The implementation of the BIO will occur after SRNS successfully completes any prestart actions.

SRNS issued their After Action Report for the annual, Building 235-F evaluated exercise conducted in May (see 5/8/15 report). The report noted the following issues with the objective to properly mitigate and stabilize conditions: 1) some fire response personnel were in the hot zone without the proper personal protective equipment (deficiency), 2) there should have been a better assessment of the potentially dangerous radiological concern (weakness), 3) the facility turnover provided to the arriving Fire Department units was inadequate, but the Fire Department took command of the incident anyway (weakness) and 4) the initial command post was set up too close to the incident (improvement item). Despite this, SRNS concluded this objective was met because they believe the players took adequate actions to minimize the release in progress (i.e., extinguish fire, cover building breach). This is the second year in a row that the location of the incident command post was a concern (see 5/16/14 report). The report also identified a weakness that the Fire Department station captain did not demonstrate good command and control.

F-Area: On Saturday, Building 235-F and portions of the rest of F-Area lost power when one of the feeder lines tripped. The safety interlocks activated and the related diesel generators started as designed. The Building 235-F E-5 exhaust fans swapped (the fan that was running stopped and the other fan started off the generator). The remainder of the fans in Building 235-F shut down as expected. Site Services personnel responded quickly and searched for the cause of the power failure. While it appeared that two phases of the power lines had been crossed, they could not find the explicit cause. Operators inside the control room placed the facilities in a safe configuration in accordance with their abnormal operating procedures and entered the necessary limiting conditions for operations (LCO) for Building 235-F and F-Canyon. The Building 235-F exhaust fan that shut down remains inoperable because the controller failed to respond when power was restored to the rest of the building. Building 235-F remains in the LCO for having one E-5 fan inoperable.

H-Canyon: SRNS began their RA for the resumption of the second uranium cycle. The purpose of the second uranium cycle is to further purify, decontaminate, and concentrate the incoming uranyl nitrate solution. The site representative observed several simulator runs, a cold run, and interviews. During the cold run, the facility encountered some operational issues.