

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 21, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: M. T. Sautman and Z. C. McCabe, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending June 21, 2019

F/H Laboratory: On Sunday, the only instrument air compressor running (other one has been out-of-service since December) overheated and a portable air compressor would not start. Per procedure, operators reduced ventilation from three main exhaust fans to one and posted contamination areas as airborne radioactivity areas. About two hours later, Operations personnel successfully started and connected the portable air compressor, and returned ventilation to normal. About 2.5 hours later, a shift operations manager (SOM) inspecting the portable air compressor noticed that the air hose was disconnected and attempts to reconnect the hose were unsuccessful because the hose had failed due to rot. Meanwhile, a suspect check valve had allowed a receiver tank to lose pressure. All personnel evacuated and all four main exhaust fans shut down. After replacing the hose, operators restarted the portable air compressor. However, operators could not restart the main exhaust fans without changing the positions of manual discharge dampers.

Emergency Preparedness (EP): In response to past observations (see 12/19/14 and 8/10/18 reports), SRNS is now training the L-Area SOM to be in charge of the response to accidents and upsets in L-Area rather than relying on K-Area personnel. This should streamline communications, improve command and control, and reduce familiarity issues.

Salt Waste Processing Facility: The current plan is to have the Parsons Management Self-Assessment (MSA)-3 team, DOE line management, and both the Parsons and DOE Operational Readiness Review (ORR) teams evaluate an EP exercise in mid-July. Meanwhile, Parsons would perform drills to demonstrate qualification and proficiency of the 5 shifts in support of their declaration of readiness and these would extend past the previous exercise. The resident inspector (RI) questioned having the ORR teams evaluate performance at a series of drills and exercises prior to Parsons and DOE line management declaring readiness for the EP scope. The ORR teams would be used as part of the process of achieving readiness rather than an independent verification of readiness.

Tritium Extraction Facility (TEF): An operator inadvertently failed to close a breaker on an uninterruptable power supply which resulted in a loss of power to several systems, including the distributed control system in the control room, and placed the facility in a state of reduced ventilation. TEF personnel noted the non-use of human performance improvement tools as a contributor to this event.

Solid Waste Management Facility (SWMF): An operator performing a weekly check discovered a bulging hazardous waste (non-radiological) drum and alerted the SOM. SWMF personnel set up a barricade surrounding the area while they confirmed the drum contents. With the contents confirmed (paint from aerosol cans), a first responder approached the drum in bunker gear and successfully depressurized the drum with non-sparking tools. SWMF personnel are still investigating the cause and determining additional actions.