

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 22, 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 November 22, 2019

Staff Activity: David Cleaves and Don Owen were at SRS to observe the contractor Operational Readiness Review (CORR) at the Salt Waste Processing Facility (SWPF).

SWPF: The CORR continued this week. The staff observed field evolutions, interviews, a waste transfer conducted on the simulator, a simulated Startup Review Board meeting, and the CORR team's deliberations on the implementation of Integrated Safety Management System at SWPF. As of Thursday, the CORR team was determining its findings and observations. The CORR team plans to provide an out-brief of CORR results to SWPF personnel on Friday.

235-F: Workers began removal of potentially combustible ceiling tiles. So far they have completed removal in East Maintenance and have several other areas remaining.

Savannah River National Laboratory (SRNL): The RI observed the annual evaluated emergency preparedness exercise simulating a full facility fire involving radiological material and an injured person. Specifically, the scenario consisted of hydraulic fluid spraying from an elevator motor onto a motor control center (MCC), which sparks and ignites the fluid creating a pool fire on the service floor of C-Wing (near the control room). The fire spread to an additional room containing radioactive material, which constituted a general emergency with potential offsite consequences. Shortly after the exercise initiated, the controller organization simulated smoke coming into the control room which drove SRNL personnel to evacuate and relocate to the alternative control room. The RI observed the exercise from the control room, alternative control room and the incident command post at various times throughout execution. SRNS personnel identified that multiple instances of drill artificiality (e.g., simulating public address announcements) resulted in some confusion among players regarding what the appropriate protective actions were. In addition, the SRNS controller organization noted some lesser issues regarding communication and failing to communicate impromptu simulations and controller actions. As noted by the controller organization, the radiological control practices in the hot, warm, and cold zones demonstrated a significant improvement compared to other recent drills at SRNL. SRNS is currently evaluating the exercise.

Tritium Extraction Facility (TEF): Last week, TEF lost ventilation while preparing for an electrical outage. TEF personnel executed a one-time only procedure that aligned both MCCs on a single diesel generator (an abnormal configuration). When TEF personnel aligned the system, the TEF supply and exhaust fans shut down. As programmed, the fans still were able to run, but were all set to a speed of 0. Approximately fourteen minutes later, one of the Remote Handling Building exhaust fans faulted which caused another fan to come online to 50 percent. TEF personnel believed they were in a state of reduced ventilation instead of a total loss until over an hour later because they misunderstood the ventilation system display on the distributed control system. The protective actions are the same for reduced ventilation and total loss.