

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 25, 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 October 25, 2019

Emergency Preparedness: The resident inspectors (RI) observed a drill at the Savannah River National Laboratory (SRNL) and evaluated exercises the Salt Waste Processing Facility (SWPF), and H-Canyon. The SRNL scenario involved a forklift crash outside that resulted in an injury and a fire involving a container of radioactive material. Control of the drill suffered when repeated conflicting information about a real event and drill suspension led to confusion amongst the controllers and players. A portable air sampler was located inches away from where firefighters were taking off their contaminated bunker gear yet controllers repeatedly stating that there was no detectable contamination on the filter paper.

The SWPF scenario was very similar to the exercise the contractor Operational Readiness Review team evaluated (see 10/4/19 report) which involved an Alpha Finishing Facility process deflagration concurrent with a ventilation system failure. This caused an injury, an indoor release of contamination and a radioactive stack release. Compared to the previous performance, SWPF personnel demonstrated improved contamination control and also entered all appropriate limiting conditions for operation. However, SWPF personnel noted that the area emergency coordinator (AEC) did not attempt to pull the procedure that directed specific public address announcements until approximately 40 minutes into the exercise. Further, there was no controlled copy of that procedure available in the control room.

The annual H-Canyon evaluated exercise consisted of a solvent leak and fire in Outside Facilities that an operator observed and reported. The operator was radiologically contaminated and experienced a burning sensation on their skin from the solvent. SRNS personnel noted some communication issues between the field, control room and SRS Operations Center. DOE-SR had one federal evaluator that also was required to play in the exercise, one contractor evaluate the field play, and no personnel in the technical support room.

235-F: The RIs met with DOE and discussed DOE's plans for fire hazards and facility deactivation. DOE is arranging for an independent technical review of the fire evaluation that a SRNS consultant recently performed. The RI provided feedback on the proposed scope of the deactivation plan and asked how the proposed end state(s) will prevent the spread of residual contamination, in particular from those seals that are degrading due to age and radiation. (See last week's report about a recent inspection identifying new seal leaks). DOE had a subsequent discussion with the contractor about ways to strengthen those plans.

Implementation Verification Reviews (IVR): The Parsons team concluded that the safety basis was implemented at the SWPF with the exception of two surveillances and inter-facility transfer procedures and other procedures implementing a specific administrative control for natural phenomena hazards. Three controls will not be in place prior to implementation of the Technical Safety Requirements. SRR also conducted their IVR on tank farms safety basis changes to support SWPF integration. The team identified four pre-implementation findings.