

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 15, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: M. T. Sautman, Resident Inspector
SUBJECT: Savannah River Site Activity Report for Week Ending August 16, 2019

Mr. David Cleaves provided resident inspector (RI) support while Mr. McCabe was in training.

Salt Waste Processing Facility: The RI and Mr. Cleaves observed the first of four planned proficiency emergency preparedness drills. The scenario simulated a deflagration in the process vessel ventilation system that caused a radiological atmospheric release. A maintenance worker was also simulated to be injured inside a contamination area. In general, the response by control room personnel and their interactions with the Fire Department showed improvement. The RI observed radiological controllers repeatedly coach technicians although this was not a coached drill. These controllers also missed or ignored opportunities for cross contamination and introduced a simulation for convenience. Responders also encountered two facility doors that were locked that should not have been.

Sample results indicate that the solvent carryover concentrations following the failure of an extraction (611 ppm) or strip (151 ppm) contactor exceeded the 87.5 ppm acceptance criteria in the off standard test procedure.

K-Area: The RI observed field activities for the annual emergency preparedness exercise. The scenario invoked a new emergency action level and involved a forklift crash and fire that results in the release of low-level waste from a waste box. In general, the response was satisfactory. Controllers noted that the incident scene coordinator left the incident command post a few times and there was difficulty obtaining and communicating the waste manifest data.

Training: The RI has been reviewing training and qualifications for operations, maintenance, and radiological protection staff. In response to several past Technical Safety Requirement (TSR) violations, SRNS began conducting more scenario-based training on TSRs a couple years ago. While continuing training plans for SRNS often include plans for frequent TSR scenarios, a review of actual training cycle agendas found that actual training did not include as many. For example, the K-Area plan included 6 TSR scenarios for 2019 so far, but only two have been conducted. K-Area training personnel provided copies of six TSR scenarios, but they all dated from 2017. The RI is also reviewing the training provided to Radiological Protection Department inspectors for responding to accidents and emergencies. A preliminary review of the general qualification cards and the task-to-training matrix found little training on these topics was formally required. A review of facility-specific qualification cards is ongoing.

Tank Farms: SRR is planning another salt removal campaign from Tank 37 in order to support 3H Evaporator operations. This will require a series of transfers from other tanks. These might include transferring Tank 42 to Tank 24 (an older-style Type IV tank) and restoring the Tank 4 purge exhaust system to allow the storage of Tank 37 salt solution. Bulk waste removal had previously been completed for Tank 4.