

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 13, 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 September 13, 2019

Tritium Facilities: The annual emergency preparedness exercise for the tritium facilities occurred this week. The scenario simulated an active shooter who discharged a weapon inside a facility, causing a release of tritium. SRNS personnel are currently evaluating the performance. The resident inspectors (RI) and Ms. Leigh Lin observed the exercise and the controller and player debriefs and noted the following observations. The facility emergency coordinator (FEC) did not demonstrate the appropriate level of command and control during the exercise. He failed to announce his assumption of the FEC role and there were instances where it appeared that the FEC was not in charge. This was likely partially due to the fact that there was five FEC-qualified individuals in the control room playing. Additionally, a Board staff member observed an instance where a controller gave information that was not earned. Further, despite the fact that all tritium personnel were supposed to be participating in the exercise, the staff member observed personnel that were walking around and eating while the active shooter and tritium release were ongoing. The Technical Support Room performed well and corrected a mistake in the emergency classification. The controller and player debriefs both noted issues with communication. For example, the public address announcements for the all clear was not specific as to whether it was in regards to the active shooter, the tritium release, both, and whether it was specific to a building or all the facilities within the tritium fence line.

Emergency Preparedness: The RI observed a drill at H-Canyon simulating a red oil explosion. The shift technical engineer was not familiar with the emergency action levels (EAL) and had a hard time determining the correct EAL based on scenario data, even with coaching. Even taking into account that the shift operations manager was in training, the overall control room response was weaker than typically observed in terms of command and control and communications. Facility management had similar observations and will be taking action to improve performance.

Salt Waste Processing Facility: The RI observed a radiological mockup on a contactor swap. The mockup had to be suspended when the hoist stopped working. The draft test results report for the Loss of Basic Process Control System (see 8/23/19 report) concluded the test was satisfactorily completed, but Parsons will be performing a new test due to DOE feedback.

Savannah River National Laboratory (SRNL): Since September 2018, SRNL personnel have performed annual maintenance on four Bulk Tritium Shipping Packages that have been used for radiological purposes. They have exceeded their suspension guides for tritium during two of the four evolutions, once this week and once in September 2018 (see 9/21/18 report). Based on discussions during an issue review (IR), the response to the event was appropriate. The corrective actions during the IR centered on preventing future issues. In addition, the IR process identified an issue with procedure performance. Further, the RI noted a concern when the personnel mentioned they held the last pre-job brief for this evolution in September 2018 because it is done “routinely.” Neither of these other shortcomings influenced the event.