

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 25, 2023

TO: Timothy J. Dwyer, Acting Technical Director
FROM: A.Z. Kline, L. Lin, Z.C. McCabe, and E.P. Richardson, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending August 25, 2023

Savannah River Tritium Enterprise (SRTE): SRTE personnel executed another emergency preparedness (EP) drill (see 8/4/23 and 8/11/23 reports). The simulated scenario involved a breached waste container simultaneous with a medical emergency in another facility. This drill suffered from issues similar to those seen in other recently run drills, including issues with communication, scenario realism, and the controller organization's level of knowledge of the facility. However, the players and controllers were critical of the performance and identified areas for improvement during the debrief. The RIs noted a few issues that were not discussed during the debrief. Most notably, the controller organization provided an unrealistic waste manifest for the shipping containers involved to the players. The waste information provided specified two different waste streams with different radiological hazards (particulates and tritium contamination). Further, the field play only included response to tritium contamination.

NNSA-SRFO transmitted a letter of concern to SRTE management regarding the emergency preparedness program. The letter specified four areas of concern, including little improvement in drill performance despite a performance plan being in place for nearly a year; high turnover and attrition in the SRTE Emergency Management Program; insufficient training and expertise of the drill team on tritium operations; and failing to meet NNSA-SRFO's expectations considering that emergency response is credited in the implemented SRTE safety bases. As such, NNSA-SRFO requested a comprehensive Emergency Management plan by September 30 and bi-weekly status updates from SRTE.

SRMC Operations: The RIs remain concerned with SRMC's approach to the qualification process for operations management positions. Last year, the RIs observed a series of oral boards at a liquid waste facility where facility management advanced candidates for operations management positions on to the final verification of competence prior to the candidates demonstrating the requisite knowledge throughout the qualification process (see 11/4/22 report). After expressing these concerns to the senior management team, the RIs observed improvements. However, the most recent oral board the RIs observed consisted of similar issues.

H-Canyon: An RI observed an EP drill simulating a radioactive spill of solvent from a tank and subsequent fire in H-Area Outside Facilities. No radiological protection department (RPD) personnel played in the drill due to various work that needed RPD resources. Instead, controllers gave injects on contamination levels and simulated the dress-down line. This detracted from the drill because players were not able to interact with RPD in a realistic manner, and it was a missed training opportunity for RPD personnel. Many of the key players were qualifying in their roles or under instruction, and controllers took several coaching opportunities. The RI identified recurrent issues from previous drills; for example, the incident scene coordinator did not arrive at the command post in a timely manner (see 2/24/23 report). In addition, the RI questioned the realism of the scenario that no other tanks next to the solvent fire were involved when it took approximately 40 minutes for the pool fire to be put out (see 9/2/22 report).