

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 8, 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 September 8, 2023

Staff Activity: The Associate Technical Director for Field Operations was on site Wednesday to observe the evaluated Savannah River National Laboratory (SRNL) annual emergency preparedness exercise.

SRNL: SRNL personnel performed their annual evaluated emergency preparedness exercise this week. The scenario involved a transuranic waste drum that exploded in B-Courtyard, which resulted in injured and contaminated victims. As part of the exercise scenario, two of the personnel, one contaminated and one severely injured and contaminated, evacuated upwind along the north side of the 773-A facility. Two others at the scene, one of whom was injured, entered D-Wing in 773-A. Both groups reported the event to the control room, which initiated the emergency response. The fire department and protective force played in the exercise along with SRNL personnel. The resident inspectors (RI) and Associate Technical Director for Field Operations observed the exercise from the control room, incident scene, incident command post, and alternate technical support room. DOE-SR and SRNL personnel are in the process of evaluating the exercise performance and developing an After-Action Report.

Defense Waste Processing Facility (DWPF): Operators relocating new (i.e., empty) stainless-steel canisters into the 210-S Canister Storage Area dropped one of the canisters four feet to the ground due to improper lift truck operations. The 1100-pound canister then slowly rolled approximately 50 feet before it came to a stop with the aid of one of the operators using their foot to apply friction. The lift truck operator was attempting to rotate the canister and instead pushed an adjacent button on the control switch, which opened the gripping mechanism, causing the canister to fall to the floor. To open the gripper, the operator pressed an override button and then manipulated another switch. DWPF engineering evaluated the damage to the canister and are in the process of drafting a Non-Conformance Report. DWPF management is investigating the issue.

Solid Waste Management Facility (SWMF): An RI was observing operations at Pad 26 when communications room personnel announced that a container had been punctured in engineered trench two and to stay upwind and clear of the area. The RI went to the communications room to observe the response. While moving a low-level waste container in the trench, a lift truck driver accidentally punctured the container with one of the forks. Personnel at the scene evacuated upwind of the punctured B-25 container. Radiological protection inspectors performed surveys on the personnel at the scene, the lift truck, and around the hole in the container, with all results below detectable limits. After getting survey results, personnel returned and covered the hole with tape. In the communications room, personnel looked up the highest activity waste container at that trench and determined the event did not rise to the level of an operational emergency with concurrence from the Savannah River Site Operations Center. Facility management stopped all heavy equipment operations, and an issue investigation is scheduled for next week.