

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 24, 2023

TO: Katherine R. Herrera, 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 February 24, 2023

DNFSB Staff Activity: Members of the Board's staff R. Eul and X. Jiang was onsite to observe operations at H-Canyon and L-Area as part of a review of the site's nuclear criticality safety program.

H-Canyon: H-Canyon personnel conducted an emergency preparedness (EP) drill involving a radiological solvent fire with a simulated injured person. The emergency response team responded to the injured person and put out the simulated fire, but multiple issues and opportunities for improvement were identified. For example, the incident scene coordinator did not arrive at the command post for approximately 30 minutes after initial notification, and personnel exited H-Canyon into the posted radiological hot zone. The DOE and SRNS senior observers identified the same issues and addressed them at the drill hot wash.

Savannah River National Laboratory (SRNL): The resident inspectors walked down E-Wing to follow-up on the resolution of previous observations provided to BSRA regarding housekeeping (7 open waste bags), barricades that were down, and a contamination area with different posted radiological dose (0 mrem/hr and 3 mrem/hr) at two of the entry points. BSRA had closed and dispositioned the waste bags. Additionally, one downed barricade had been corrected. During the follow-up walkdown, the resident inspectors noted several other housekeeping related items that require attention. Most of the items were a result of the recently completed shielded cell window replacement efforts, such as extra waste bags and equipment. Further, the same two entry points for the contamination area were updated but still contained inconsistent information. Specifically, they listed different alpha and beta/gamma contamination levels on the two postings, which require different standing radiological work permits and protective clothing. BSRA personnel quickly reconciled this discrepancy by establishing two separate contamination areas.

H-Tank Farms: An EP drill was conducted at Tank Farms that involved a leak from an above-ground waste transfer. The players and controllers identified several opportunities for improvement and areas where more guidance is necessary. For example, during the debrief after the drill, there were questions as to whether the operator sent to isolate the pump in the field needed to wait for radiological protection department inspectors before going in or if they should prioritize stopping the transfer immediately. Command and control and communications between the Incident Commander and first line managers in the field were generally good. However, when the Incident Commander readied a team to go in to ascertain the situation at the scene, they were delayed because the initial turnback dose rates requested was well above what was needed for the scenario and required additional approval. Lower turnback rates were given eventually with the Facility Emergency Coordinator's concurrence. Throughout the drill, personnel were talking over the public announcements. In addition, during the remain indoors protective action, many personnel that were not part of the response were walking or driving around that were not identified with an exempt vest.