

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 24, 2024

**TO:** Timothy J. Dwyer, Technical Director  
**FROM:** L. Lin, Z.C. McCabe, and E.P. Richardson, Resident Inspectors  
**SUBJECT:** Savannah River Site Activity Report for Week Ending May 24, 2024

**Staff Activity:** The Board's cognizant engineer M. Randby was on-site to observe the Savannah River Tritium Enterprise (SRTE) mass casualty drill and perform walkdowns as part of routine oversight activities.

**SRTE:** SRTE executed their first mass casualty emergency preparedness drill which exceeded the capacity of on-site medical transportation. The event simulated a radiological release with a fire along with seven injuries and a fatality, which is a marked increase in complexity from other previously run scenarios. The SRTE emergency response organization struggled to effectively combat the casualties, losing the common operating picture and not effectively tracking the injured personnel, but displayed great tenacity by working through this scenario and being sufficiently self-critical during the hotwash. The drill team demonstrated significant preparation and took many coaching opportunities in the field. Overall, it is encouraging that SRTE personnel challenged themselves with this scenario.

**Defense Waste Processing Facility (DWPF):** While personnel were performing corrective maintenance in the melt cell, the device they were using to lubricate the melter bellows leaked flammable lubricant onto the energized bellows heater, and the lubricant caught on fire. The fire burned for approximately six seconds until the operator turned off the air providing the lubricant motive force and the fire went out. The team (consisting of multiple operators and engineers) then repositioned the apparatus and continued with the evolution without notifying anyone of the fire. Operations management learned of the event the next morning when the Facility Engineering Manager realized that operations management had not been briefed on the fire. At that point, the facility declared the appropriate occurrence report and notified DOE-SR.

Last weekend, DWPF personnel were starting the process steam generator when the control room received indication of smoke and startup of the fire water pump. Prior to the alarms, an operator was tasked with monitoring steam and placing the 1<sup>st</sup> level valves in the blowdown position. However, the operator left the area to hydrate and use the rest room without requesting relief. While the operator was away, condensate and steam began to flow, which actuated a nearby sprinkler head.

**Solid Waste Management Facility (SWMF):** SWMF conducted their annual emergency preparedness exercise this week, which consisted of a fire, radiological release, and medical event. The site and DOE are evaluating the facility's performance.

**Savannah River National Laboratory (SRNL):** SRNL is planning to observe field demonstrations of multiple new specific administrative controls associated with revision 3 of the SRNL safety basis prior to implementation (see 5/17/24 and 5/10/24 reports). This effort will include research and development personnel evolutions. As such, SRNL personnel are now planning to implement the safety basis next month.