DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 11, 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 11, 2023

Savannah River Tritium Enterprise (SRTE): The resident inspectors (RIs) observed an Emergency Preparedness (EP) drill involving a fork truck impacting a waste container outside of the Tritium Extraction Facility (TEF) and resulting in exposed waste and a medical injury. The drill also simulated a medical emergency in H-Area Old Manufacturing (HAOM) shortly thereafter. This was the second new scenario run by SRTE in two weeks and similar issues with drill control and emergency response were noted by the RIs, SRTE drill team, and observers alike (see 8/4/23 report). Poor coordination between controllers due to the inability to communicate caused numerous issues with drill initiation, pausing, and resumption, which reduced the effectiveness of the training drills. The facilities failed to maintain a common operating picture during both drills primarily due to their inability to effectively communicate between the scene, control room, and incident command post (ICP). Drill players, including emergency responders, and controllers rely on one radio channel, which causes significant delays in communication, especially when coupled with numerous public address announcements. This week, the control room consistently received key information late, including the arrival of the fire department and treatment of the first patient. The HAOM incident scene coordinator did not know the location of the ICP, was significantly delayed in establishing communications with the control room, and never made it to the assigned location.

Defense Waste Processing Facility (DWPF): DWPF conducted a facility EP drill involving response to a contaminated person. The RI observed good coaching from the controllers, including asking the players what they would do in different situations and discussing the thought process behind the actions they were taking. During the debrief, players and controllers noted opportunities for improvement in their communications with the control room, barricading the area, and having supplies in the decontamination room. Observers noted that, beyond the initial public announcement and radio message of a contaminated person in the facility, no further announcements were made (for example, to stay clear of the path from the scene to the decontamination room). Overall, the response and conduct of the drill were satisfactory.

L-Area: During a safe energy determination for a lockout supporting a tritium air monitor chart recorder replacement, L-Area personnel discovered that a component in the panel was unexpectedly energized. Upon this realization, L-Area personnel appropriately called a time out and stopped the evolution. The subsequent issue investigation revealed two main contributors for this event. During the drawing review supporting the lockout, the L-Area engineer did not recognize that the components within the panel were powered from two different sources. This was included in the drawings as a note referencing other documents. This oversight would have been readily identified by the engineer and others involved in the planning process through a thorough walkdown of the panel. However, while the engineer and hands-on workers performed a walkdown of the panel in preparation for the lockout, they did not open the panel to confirm the internal configuration during the panel due to resource limitations.