DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 20, 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 January 20, 2023

Tank Farms: F-Tank Farms conducted an emergency preparedness drill involving an impacted radiological waste container. The Incident Scene Coordinator's command and control was weak, but the resident inspector (RI) observed good coaching between players and between the controllers and players. The team exhibited confusion when determining how far upwind of the simulated radiological release the incident command staff should be located. Additionally, the RI observed multiple opportunities for improvement regarding drill control. The incident scene had been set-up with tape displaying dose rates at different distances that the controller could provide to players as they earned it. This information was not adequately obscured, allowing players to view and convey the dose rates to the control room immediately, rather than survey in with instruments and earn the data as intended. This drill conduct deficiency was self-identified by the controller organization. The first remain indoors protective action announcement occurred approximately 40 minutes into the drill. During the drill debrief, the RI noted that the categorization and classification of the event, which would drive protective actions and notifications, was delayed. DOE Order 151.1D indicates that operational emergencies must be categorized as promptly as possible, but no later than 15 minutes after recognition of an incident with actual or potential serious health and safety impacts. In addition, categorization should occur no more than 30 minutes from initial discovery (e.g., in cases where personnel are not at the scene and may need to be sent out to confirm conditions). For the drill, personnel were at the scene and reported the event to the control room immediately. However, the controller organization focused on the "no more than 30 minutes from initial discovery," rather than categorizing the event promptly, not to exceed 15 minutes after the SOM had enough information to identify it as an operational emergency. SRMC emergency management plans to send their expectations that operational emergencies be declared as promptly as possible to the emergency management team and to SRMC facility management.

Defense Waste Processing Facility (DWPF): An RI discovered a calibration procedure that was suspended with no associated SOM logbook entry. Electrical technicians performing the calibration could not complete a procedure step as written and notified the SOM, who suspended the procedure and directed restoration activities per a later section in the procedure. The following day, operations revised the calibration procedure and successfully executed the work. Per the SRS Conduct of Operations manual, any procedure suspension (including additional actions given by the SOM) shall be recorded in the SOM logbook. Once the RI questioned if a logbook entry was completed, the SOM logged a late entry for the procedure suspension.

H-Canyon: H-Canyon entered the Potential Inadequacy in the Safety Analysis (PISA) process due to the discovery that the Documented Safety Analysis does not include unmitigated consequences from a piping leak external to H-Canyon during a waste transfer to H-Tank Farm concurrent with a seismic event. Evaluation of the PISA resulted in a positive Unreviewed Safety Question. The facility is evaluating the situation but does not anticipate needing additional controls due to the transfer line running through a concrete encasement.