

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 24, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: L. Lin and Z. C. McCabe, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending September 24, 2021

Tank Farms: Tank Farms personnel conducted a limited participation coached drill from the control room that involved a standard waste box containing contaminated equipment falling from a truck and spilling its contents. Participants included control room personnel, operations support center personnel, and incident scene responders. No other Tank Farms personnel participated. All participants discussed their response and simulated their actions as they would during a table-top drill, except control room personnel, who took normal response actions. Upon drill initiation, the Shift Operations Manager (SOM) and Shift Technical Engineer (STE) promptly and correctly categorized the event as an Alert. Control room operators quickly initiated the abnormal operating procedure and began taking the appropriate response actions, including an announcement to stay clear of the incident scene. This announcement was intended to be simulated due to the limited nature of the drill; however, the only drill controller in the control room was occupied with the SOM and STE at the time and thus unable to insert the simulation point. The RI discussed this with the lead controller following the drill who agreed that an additional drill controller in the control room would likely improve future drill control however, current guidance limits the number of people in an area with requesting an exemption.

Savannah River National Laboratory (SRNL): SRNS and BSRA both identified that the inadequate turnover between two first line managers (FLMs) directly contributed to the procedural criticality safety limit exceedance at H-Canyon last week (see 9/17/21 report). The RI discussed this shortcoming with DOE-SR personnel this week, who subsequently followed-up with BSRA. Initially, BSRA personnel included a corrective action to develop and implement a thorough turnover process by mid-December. After discussions with DOE-SR, BSRA added two corrective actions to the site tracking database: a) develop and distribute a lessons learned report and b) implement an interim measure to ensure adequate turnover between FLMs by September 27. The RI believes that the additional corrective actions are necessary.

Defense Waste Processing Facility (DWPF): A DWPF chemist attempted to refill deionized water bottles in a laboratory using the deionized water supply unit, but the unit would not supply water. The chemist also observed this condition when attempting to use the supply unit in a second nearby laboratory. The chemist inadvertently left both supply unit fill valves open when they left the lab to discuss the issue with their first line manager. Meanwhile, the maintenance organization was in the process of calibrating a pressure switch on the deionized water system in a separate part of the laboratory, which caused them to secure the deionized water supply system. Upon completion of the maintenance later in the day, the water supply was restored to normal. DWPF personnel discovered this hours later during the night shift after over 75 gallons of deionized water overflowed into the labs and adjacent hallway. DWPF personnel responded to this event appropriately as a potentially contaminated spill and did not identify any spread of contamination. After a previous deionized water spill, DWPF personnel determined that operation of the supply units was considered skill of the craft and did not require a procedure (see 12/11/20 report). Based on the recent issue, they are reevaluating that determination.