DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 26, 2018

TO: Christopher J. Roscetti, Technical Director

FROM: M. T. Sautman and Z. C. McCabe, Resident Inspectors

SUBJECT: Savannah River Site Activity Report for Week Ending October 26, 2018

Building 235-F: SRNS has continued investigating potential causes for glove failures in brand new gloves. This has included use of the mockups, inspections of porosity, thickness measurements, checking for sharp edges, review of receipt inspection data, etc. All six failures have been from the same lot of gloves. The current failure total stands at six of the eleven gloves from this lot that had been installed. SRNS will no longer use any of the gloves from this lot. The remaining five already installed will be replaced. SRNS has replaced three failed gloves in the wing cabinet connected to cell 1, and they anticipate the removal of material from the floor of a wing cabinet can begin during the week of October 29th at the earliest.

Savannah River National Laboratory (SRNL): SRNL experienced a loss of ventilation for E-Wing B-Cell Block while performing the calibration for one of the cell block exhaust fans. Shortly after beginning the calibration, the control room began receiving several unexpected alarms associated with a loss of ventilation in B-Cell Block. Per the abnormal operating procedure, the shift operations manager (SOM) dispatched an operator to confirm the condition by reading a safety significant gauge in E-Wing. The operator was able to report the failed condition approximately thirteen minutes after the initial alarm. The SOM then entered the appropriate limiting condition of operation which required the restoration of the ventilation within two hours. One hour and fifty-five minutes later the SOM entered a subsequence limiting condition for operation (LCO) and placed the cell block in standby mode. Shortly thereafter SRNL personnel restored ventilation. SRNL personnel are investigating the cause of the upset.

Emergency Preparedness (EP): The resident inspector observed a coached EP drill at the Defense Waste Processing Facility. Like several other drill at DWPFs, the scenario included an Alert triggered by a formic acid spill. However, this iteration of the drill included the added complication of two radiologically contaminated individuals and an injured person. SRR personnel took several coaching opportunities during the drill. Additionally, SRR personnel identified several areas for improvement after the fact. For instance, they identified that the players did not immediately recognize the need for control room habitability surveys as a result of the formic acid spill. Additionally, SRR personnel noted an issue with a player informing the Area Emergency Coordinator with incomplete information regarding the location of the contaminated individuals which led to a brief period of confusion.

Mr. Cleaves of the Board's technical staff observed an EP drill conducted at the Solid Waste Management Facility involving the transport by forklift of four waste drums between Pads 15 and 6. In the scenario, the forklift operator experiences severe chest pains that causes the forklift to collide into a barrier wall, resulting in the breach of two waste drums. The thoroughness of communications throughout the drill was identified as an area for improvement.

Starting in 2019, SRNS will perform full Fire Department response (i.e., 2-3 stations) for SRNS annual facility EP evaluated exercises rather than just the annual site EP exercise.