

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 11, 2022

TO: Christopher J. Roscetti, 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 November 11, 2022

F/H Laboratory: A resident inspector observed a coached emergency preparedness drill involving a simulated breached transuranic waste drum. While the shift operations manager (SOM) was experienced, other control room operations personnel had limited drill experience, and the controller organization did not take advantage of several coaching opportunities to enhance the training value of the drill. For instance, early in the drill the SOM was working on multiple tasks that they would normally be assisted by several people, including classifying the event, providing safe travel paths for responders, reviewing the emergency checklist, making public address announcements, reviewing procedures, and communicating with the SRS Operations Center. The other players in the control room provided limited support during this time and were not coached to assist the SOM. F/H Laboratory's next scheduled emergency preparedness drill is their evaluated exercise.

Tank Farms: A maintenance mechanic was removing a drain plug from a tank vacuum breaker when chromate (a liquid used for cooling tanks that could have radioactive contamination) sprayed onto the mechanic's gloved hand and the mechanic then inadvertently touched his facial area. A radiological protection inspector (RPI) did not detect any contamination on the maintenance mechanic. Initial attempts to perform this work occurred in early August but were stopped when an RPI detected excess contamination on the vacuum breaker. The path forward included revising the work instructions and hazards analysis to address the new field conditions. However, when the work was resumed last week, the work instructions and hazards analysis had not been revised in the database or provided to the maintenance mechanic performing the work. Tank Farms personnel conducted an issue investigation and determined that the job should have required respiratory protection due to previously identified contamination levels. Tank Farms management noted that if the appropriate hazard controls had been in place, the worker would likely not have been exposed to the chromate liquid and would have been protected from potential radiological contamination. The facility has suspended the evolution until the work package is revised.

H-Canyon: An RPI exiting a radiological buffer area (RBA) alarmed an ARGOS personnel contamination monitor twice with levels reaching 5000 dpm/100cm² β/γ on their right hand and 2000 dpm/100cm² β/γ on their left hand. Investigation revealed that the contamination transferred from an improperly stored portable contamination counter in an RBA that probed 320,000 dpm/100cm² β/γ. Following the discovery, RPIs performed extensive surveys and paperwork reviews but have been unable to determine the source of the contamination on the instrument. The RPI was successfully decontaminated, and H-Canyon personnel found no further spread of contamination. An issue investigation meeting held on 11/9/22 established the initial facts and timeline, but additional interviews are ongoing to determine the source of the contamination.