

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 22, 2018

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman and Z. C. McCabe, Resident Inspectors
SUBJECT: Savannah River Site Activity Report for Week Ending June 22, 2018

H-Tank Farms: SRR discovered a sink hole (approximately 4' long X 3' wide X 3.5' deep) in the asphalt on the east side of the 2H Evaporator. There are no transfer lines exposed in the hole, but ground penetrating radar found that the safety class 2H Evaporator vent line to Tank 43 passes underneath the hole. There are also transfer lines nearby. SRR has prohibited operation of the 2H Evaporator and transfers through lines in close proximity of the hole. A hole in the safety class Tank 11 purge ventilation flex connector is suspected to be due to an external impact in the congested space.

235-F: The resident inspector observed a continuous air monitor alarm (CAM) drill and an external event impacting 235-F emergency preparedness drill. While the emergency response at both drills was satisfactory, both represented missed opportunities. The CAM drill simply required workers in street clothes to exit West Maintenance and be surveyed and was more of a walkthrough/discussion than an actual drill. It was not performed in accordance with the approved drill scenario package, which includes the shift operations manager response. It also did not involve the hut or workers in plastic suits/anti-contamination clothing that will be used in upcoming work, which would involve a more complicated response. The external event scenario has been run for years and takes place outside the building. A scenario focused on cell remediation hazards may have been more relevant, even if it did not cause a site area emergency.

H-Canyon: The H-Canyon vessel purge air jumper design is safety-significant (SS) since it is used to dilute flammable gases. A recent review of the safety function and system description wording led engineers to conclude that the purge air jumper gaskets should be safety significant. While a Master Equipment List often defines which components of safety systems (e.g., a diesel generator) are SS and general service (GS), this is not done for jumpers – some of which do not have a component location identifier for the gasket itself. As part of a previous Potential Inadequacy in the Safety Analysis extent of condition, the purge air jumpers for five tanks had GS gaskets installed in them rather than SS ones. SRNS issued a nonconformance report for these. The conditional release said these GS gaskets could continue to be used because each underwent a successful leak check demonstration that showed they met its design and safety functions. Similar GS gaskets are used in several other locations, but these and other passive components were grandfathered when SRNS upgraded their Documented Safety Analysis several years ago.

F-Area: A fire testing operator noticed that an ant infestation was affecting the voltage of phone lines used for connecting the F-Canyon Diesel Generator Building fire alarm control panel to the SRS Operations Center (SRSOC). He removed the ants and contacted the information technology group in order to have a subcontractor fix the phone lines. The F-Area Shift Operations Manager was not notified of any of this. When the subcontractor disconnected the phone lines to replace the equipment, the SRSOC received multiple alarms from the panel and contacted the control room, which was unaware of the maintenance being performed.