

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 17, 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 February 17, 2023

H-Tank Farms: A member of the Board's technical staff observed the pre-job brief and recovery work for the tipped crane located between Tanks 35 and 36 on the west hill (see 2/10/23 report). SRMC personnel completed the evolution using a complex critical lift involving four additional cranes. The uprighting and removal of the crane from the west hill was successfully completed without significant issue. However, SRMC personnel were in the process of demobilizing one of the supporting cranes when an approximately 22,000 pound counterweight when it impacted and shattered the crane operator's cab window.

The technical staff member and resident inspector (RI) attended the fact-finding for the tipped crane event. SRMC personnel noted several potential issues that may have contributed to this event and are planning to complete a formal root cause analysis. The discussions during the meeting focused on several contributing factors including: failure to perform a travel pathway walkdown prior to the crane movement, and operating the crane outside of the required limits as specified by the crane operating manual and warning signs in the cab during booming operations to support crane cab rotation. SRMC management has instituted a crane operations and movement pause that limits crane operations while they develop a path forward.

Defense Waste Processing Facility (DWPF): DWPF management conducted a fact finding after it was identified that they did not enter a Limiting Condition of Operation (LCO) for an inoperable pressure indicator while the Safety Grade Nitrogen (SGN) system was locked out. Multiple work groups did not recognize that the boundary point on the SGN lockout would impact the pressure indicator and therefore did not include it on the safety system impact sheet. Additionally, a Technical Safety Requirements surveillance is conducted every 12 hours on the pressure indicator to verify a minimum pressure via facility rounds. Operations conducted the surveillance three times and recorded the pressure indicator as out of service, but did not recognize the LCO was not entered. Also contributing to the event was a lack of communication and round sheet review by the first line manager and shift operations manager. Operations personnel discovered the issue and entered the required LCO when the lockout was removed and the system was being restored, approximately 24 hours after the pressure indicator was inoperable. DWPF personnel have determined that the LCO required actions were met as the lockout prevented the SGN system from supplying the purge and the system was restored within 7 days.

H-Area: An RI performed a walkdown of outdoor inactive contamination areas (ICA) and inactive high contamination areas (IHCA) with radiological protection department personnel at H-Outside Facilities and H-Tank Farms. The RI noted several radiological placards at H-Tank Farms whose survey dates for contamination levels did not match the records in the electronic database. Tank Farms personnel addressed the issues by either updating the survey date in the electronic database after the survey was identified or by fixing the ICA/IHCA placard survey date and levels and inserting an "Update Upon Entry" sign on the placard.