

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 22, 2023

TO: Timothy J. Dwyer, 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 September 22, 2023

Andrew Kline has departed from his role as resident inspector at SRS.

Defense Waste Processing Facility (DWPF): Based on their own observations and feedback from the resident inspectors (see 9/15/23 report), DWPF management has expanded on their compensatory measures regarding proper execution of operator rounds. Beginning next week, management will oversee operator rounds each shift to provide coaching and gather additional data for determining other existing weaknesses. Additionally, DWPF management has consolidated feedback from recently completed observations, which will be briefed to each shift.

H-Canyon: After establishing a lockout for the process air system, construction personnel began working to install piping to tie-in new air compressors. The worker utilized the appropriate technique, including incremental loosening of the bolts on the blind flange and not standing directly in the “line of fire” during the first line break on a blind flange. Shortly after beginning, the worker noted a continuous stream of air escaping (later determined to be caused by a failed valve). The worker re-tightened the loosened bolts and reported the issue to management. The shift operations manager (SOM) then directed an operator to shut down the process air compressor to eliminate the source of hazardous energy. However, the SOM failed to recognize that this expanded the boundary of the lockout and should have prompted a revision. The SOM informed the worker that it was safe to resume work. The worker then completed two tie-ins and signed off the lockout. The following Monday, the operations manager noted the hazardous energy control issue while reviewing the SOM logbook.

Savannah River National Laboratory (SRNL): SRNL operations personnel entered standby mode (infrequent at SRNL) for C-Wing laboratories as a result of poor document control. In preparation for the DeltaV distributed control system tie-in, SRNL personnel entered the Limiting Condition for Operations (LCO) action for an inoperable Central Hood Exhaust (CHEX) low pressure alarm, which requires verifying the exhaust plenum pressure every 12 hours and restoring the alarm within 14 days. After the tie-in was complete, the functional check of the CHEX low alarm failed and required calibration. When SRNL personnel first attempted to perform the calibration, operators stopped after noticing that an attachment contained the incorrect units, which was the subject of a previous revision. After revising the procedure again, SRNL personnel attempted to perform the calibration again. During this evolution, they realized that a step referenced the incorrect previous step in an earlier section. This error was also present in the previous procedure revision when they moved a step into the prerequisite section but failed to carry the renumbering through subsequent sections. This error was corrected, and SRNL personnel were able to successfully complete the calibration, but not before the LCO required actions dictated that C-Wing laboratories be placed in standby mode (14 days after entering the LCO). Further, SRNL personnel identified that the most recent revision of the procedure and the previous revision did not identify that the revision occurred, which is normally noted via an interim procedure change form or a different revision number.