

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 2, 2021

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 April 2, 2021

Savannah River Tritium Enterprise (SRTE): The Tritium Facilities Technical Safety Requirements (TSRs) include a surveillance requirement to perform an operability check of safety significant Tritium Air Monitors (TAMs) every 72 hours. As a conservative measure, radiological protection department (RPD) personnel perform these readings once per day. As a result of a (now completed) major electrical outage, H-Area New Manufacturing (HANM) was in a state of reduced ventilation which limited process room access to individuals accompanied by RPD personnel who could verify appropriate oxygen and tritium levels in the room. Further, Room 15's TAMs measured high tritium activity, which completely prohibited access to the room due to the Breathing Air System also being out of service. As such, RPD personnel were not able to access the TAMs in Room 15 during rounds; however, the RPD personnel that performed rounds inadvertently marked both TAMs in Room 15 as satisfactory. The rounds were then reviewed and approved by the shift manager. The following shift, the RPD first line manager questioned how the operability checks for the two Room 15 TAMs were performed, which is what identified the issue. Once the error was discovered, SRTE personnel entered the appropriate limiting condition for operation (LCO). Because it had been only approximately 1.5 days since the last surveillance was properly performed this did not constitute a TSR violation. During an issue review, SRTE personnel noted several shortcomings that contributed to this error, including a larger-than-normal amount of abnormal conditions in the facility and less than adequate turnover of the operability status of the Room 15 TAMs.

Independent of the above issue, SRTE personnel approved and installed a lockout to support the upgrade of Programmable Logic Controllers. This task impacted the operability (alarms) of 12 safety significant TAMs in HANM. However, the writer and reviewers of the lockout work order failed to recognize the entire impact and only included 6 of the TAMs. As such, operations personnel entered the appropriate LCO and restricted access to the affected rooms listed on the lockout work order. The error was identified after an unrelated alarm activated in the control room and HANM personnel noted that several TAMs failed to respond as expected. Between the installation of the lockout and the identification of the issue, SRTE personnel had entered rooms without operable TAMs, which constitutes a violation of the TSRs. Each TAM is equipped with local audible and visual alarms, neither of which was operable in the rooms that the HANM personnel entered that should have had access restricted, but the control room alarms were. There was no tritium activity above background in the affected rooms while occupied.

COVID: Last week the Savannah River Site began administering COVID-19 vaccinations to site personnel.

Savannah River National Laboratory (SRNL): SRNL hosted members of the Battelle Savannah River Alliance (BSRA) transition team for the upcoming contract transition. SRNL personnel led the BSRA team members on walkdowns of SRNL facilities. The resident inspector participated in a portion of these walkdowns.