

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 9, 2018

TO: S. A. Stokes, Technical Director
FROM: M. T. Sautman and Z. C. McCabe, Resident Inspectors
SUBJECT: Savannah River Site Resident Inspector Report for Week Ending Feb. 9, 2018

Savannah River National Laboratory (SRNL): SRNL has been operating under a Justification for Continued Operations (JCO) since 2012 because the safety-significant fire sprinkler system is not fully compliant with National Fire Protection Association 13. Since then, maintenance personnel (MP) have been upgrading the system. A recent maintenance work order required a portion of the system be purposefully removed from service for approximately three days. In preparation for MP isolating the system, the shift operations manager (SOM) entered a JCO limiting condition for operations (JLCO) since the system would be unavailable which requires it to be restored within two hours. 25 minutes later, the SOM entered a subsequent JLCO for when the 2 hour completion time of the first JLCO is not met that requires compensatory measures and the system to be restored within 24 hours. 13 minutes after that, the SOM entered a third JLCO condition for when the 24 hour time limit of the second JLCO is not met which requires implementation of more restrictive compensatory measures and requires the system to be restored “immediately.” Immediately is defined in the Technical Safety Requirements (TSRs) as “[w]ithout delay. Immediately is used as a completion time when a condition cannot be permitted to continue, and the corresponding required action must be initiated without delay and continued until completed.” The resident inspector (RI) questioned whether a planned activity where a system was purposefully removed from service for several days met the intent of restoring the system immediately. Further, the justification for the third JLCO states that the compensatory measures including restoration “will proceed in a manner to prevent further degradation of the facility safety posture,” and yet the MP continued work by breaking lines and modifying the system after the initial isolation. SRNL personnel believe that any action after the initial system isolation, including line breaks, were actions towards restoration and thus in compliance with their JLCO requirement. In the RI’s opinion, the JCO does not appear include any JLCOs that are appropriate for multi-day sprinkler system outages.

Tritium Facilities: Oral boards that the RIs have observed are not consistently reflecting the lessons learned and corrective actions from several events and violations across SRS. For example, the safety basis section of a SOM board focused heavily on listing LCOs and design features rather than demonstrating how they would apply the TSRs to a situation, determine operability, or recognize a violation. Similarly, in a recent board the section on emergency preparedness focused on listing their responsibilities rather than having the candidate demonstrate that they could classify an emergency correctly, issue protective actions, and coordinate emergency response actions.

Waste Container Filters: SRNS personnel recently identified that 375 container filters were procured at level 3 instead of the required level 2, meaning they do not have the required level of quality assurance. Only 100 of the filters have been installed by HB-Line personnel. Of these, 75 were on containers later sent to the Solid Waste Management Facility (SWMF), 22 filters remain at HB-line, and 3 filters are missing. The filters at SWMF led to multiple LCO entries that have since been dispositioned after SRNS determined the filters could be used as-is.