DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 24, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: Frank Harshman, Clinton Jones, and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending June 24, 2022

Building 9204-2E: A shift manager was performing the weekly Criticality Accident Alarm System (CAAS) surveillance requirement 4.1.5 to verify power was supplied to the system when he observed that one of the power indicator lights, (LA-1), was not illuminated. This indicator light is a confirmation that the CAAS warning lights are powered in certain areas of the building that have a potential for reduced audibility during a criticality accident. Upon further inspection of the breaker panel, the off-duty shift manager noted a breaker that feeds the LA-1 circuit was tripped open. The off-duty shift manager then reset the breaker by opening it and then reclosing it. He then reinspected the LA-1 light for power, and it was still not illuminated. The off-duty shift manager called the on-duty shift manager to report what he found, and a log entry was made detailing the event. The Limiting Condition for Operation (LCO) 3.1.A (CAAS or element of CAAS is inoperable), Action statement A.1.1.1 (Suspend Fissile Material Handling in the affected portion…) is required to be completed in 1 Hour or Action Statement A.1.2 (Establish a RESTRICTED ACCESS AREA…) is required to be completed in 4 hours. The shift manager did not log that the LCO conditions were met or that action statements were entered. The operations manager was not aware of the significance of the breaker in the tripped open condition (rendering the system inoperable), and the shift managers did not recognize this met the LCO actions required by the Technical Safety Requirements. This detail was discovered by a resident inspector upon review of the shift manager logbook and after speaking with the off-duty shift manager. The resident inspector reported his discovery to the operations manager. The operations manager filed an occurrence report for performance degradation of a credited system when it was required to be operable and directed the shift manager to make a late entry in the logbook to reflect the LCO condition and action statements were met. CNS's preliminary investigation of the equipment found that the indicator light bulb had fused to the light socket, and this may have caused the breaker to trip open. The resident inspector questioned whether the continued use of the bulb socket with the fused material inside was a risk to the operability of the system. The system engineer and CAAS system design authority representative stated they had taken that into account when giving their input on the operability determination being written by facility operations management. They considered the condition of the bulb socket to be a non-hazard that could be left in place until a replacement can be installed.

NNSA: A resident inspector attended the second day of the virtual NNSA Symposium on Safety Performance Objectives, Measures, and Commitments (SPOMC). In the first half of the symposium, management & operating (M&O) contractor senior leadership and personnel from NNSA field offices and other DOE offices each shared their perspectives on SPOMC. This was followed by a presentation on the SPOMC process flowchart in NNSA Supplemental Directive 450.2B. The second half of the symposium consisted of two discussion panels. First, a M&O panel consisting of representatives from several DOE sites discussed improving consistency with the development/implementation of SPOMC. In the second M&O panel, another set of representatives discussed the quality of SPOMC.