

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 12, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: Frank Harshman and Clinton Jones, resident inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending August 12, 2022

DNFSB Staff Activity: Frank Harshman traveled to Los Alamos National Laboratory this week for an objectivity visit.

Building 9212: On Monday August 8, 2022 an uninterruptible power supply (UPS) that feeds power to a sensor circuit failed, causing an alarm at the operations center that corresponded to a release of anhydrous hydrogen fluoride (HF) from Building 9212. The operations center staff entered their emergency response procedure and made a site wide announcement alerting plant personnel to stay clear of the affected area. The building 9212 shift manager entered the applicable alarm response procedure and completed the necessary actions, confirming that no HF was release. Once the conditions were verified to be a non-emergency, the operations center made a subsequent announcement that gave the all clear. The resident inspector followed up with the assistant operations manager and shift manager to verify the appropriate alarm response procedures were entered and tracked to completion. The affected UPS was reset, clearing the condition and a follow up maintenance troubleshooting package has been created.

Nuclear Criticality Safety: Workers recently questioned the spacing of shelves in a fissile material storage cabinet. An administrative boundary was established around the cabinet until the question could be resolved. The shelves are required to be spaced 12 inches apart per the applicable criticality safety evaluation (CSE), but it was found that the shelves only had 11.75 inches of spacing between them. On March 17, 2022 the CSE was revised to allow for installation of 2-inch pads under the containers, requiring a 12 inch minimum spacing. During the implementation of the pads, the new spacing requirement was not verified by reviewing the original walkdown document or by performing another walkdown. At the event investigation, CNS discovered the original CSE was based on a walkdown that was performed in November 2019 when the spacing requirements of a minimum 10 inches were required and field verified.

Fire Protection: NPO determined that the fire suppression system limiting conditions for operation (LCOs) in the Technical Safety Requirements (TSRs) for Buildings 9204-2E, 9206, 9212, 9215, and 9720-5 contain an LCO action statement that does not provide adequate compensation for the unavailable safety function of the system. The LCO action statement suspends hazardous material movement in the affected sprinkler coverage area within 92 days of the time of discovery. Currently this action may be performed in place of the action to restore system operability within 92 days if the system is unable to be restored. NPO issued technical direction to CNS to remove the compensatory action to suspend hazardous material movement from the LCOs for Buildings 9204-2E, 9206, 9212, 9215, and 9720-5. Without this action, facilities that exceed the 92-day completion time for restoring the fire suppression system operability would be required to declare a TSR violation and enter Warm Standby Mode. Going forward, NPO's expectation is that CNS will prepare and submit for NPO approval the necessary safety basis documentation to address the situation where the 92-day completion time is exceeded.