

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 21, 2023

TO: Timothy J. Dwyer, Acting Technical Director
FROM: Frank Harshman, Resident Inspector
SUBJECT: Oak Ridge Activity Report for Week Ending July 21, 2023

Staff Activity: C. Jones traveled to Pantex this week to observe operations and conduct benchmarking with Pantex resident inspectors.

Building 9215: The resident inspector joined a NPO criticality safety engineer, CNS criticality safety engineers, and facility operations personnel on a nuclear criticality safety (NCS) walkdown of Building 9215. The resident inspector questioned the group on the status of previously identified deficiencies and the plans for disposition. During the walkdown, construction personnel notified facility operations personnel of a container of mop heads with an unknown origin. Facility operations personnel entered the abnormal operation procedure for an abnormal condition involving fissile material and established an administrative boundary. The CNS criticality safety engineer inspected the area and advised the shift manager to rescind the administrative boundary to the container until formal NCS guidance is provided for its resolution. The resident inspector did not observe any issues with CNS's response.

Nuclear Criticality Safety: CNS filed an occurrence report for a deficiency in a criticality safety analysis such that adequate controls were not in place. NPO initially questioned the adequacy of the criticality safety evaluation (CSE) about the spacing requirements between sample bottles and a loaded sample carrier on a fissile workstation. The CSE incorrectly relied on the NCS general handling requirement for a minimum of 12 inches of spacing between the carrier and bottles, but no specific spacing guidance was provided in the CSE. CNS established compensatory measures of posting the spacing requirements and marking the workstation with tape to ensure that the minimum required spacing is clearly visible while the CSE is updated. The resident inspector discussed the matter with the NPO criticality safety engineer and currently has no concerns with CNS' response to this issue.

Continued Safe Operating Oversight Team (CSOOT): The resident inspector attended a CSOOT monthly meeting. CNS discussions centered on the preparation and analysis required for the upcoming annual report on the safe continued operation of Building 9212. CNS plans to include a reevaluation of the 2014 uranium transition strategy for Building 9212 to assess whether the strategy outlined in the document is still valid due to the delay in the Uranium Processing Facility startup to as late as 2030. In addition, CNS intends to examine the impact of the oxide conversion facility closure with respect to the overall risk reduction from both the direct effects of removing hazards from the facility and secondary effects such as the ability to relocate maintenance resources.

Building 9204-02E: CNS completed the power system alignment for one of the building's main switchgear units to the newly installed 13.8kV/480V transformer. This alignment concludes a multiyear effort to upgrade the building's main transformers and associated switchgear. CNS planned the upgrades to increase reliability and ensure availability to support current and future mission work in the facility. CNS upgraded the electrical systems as part of the extended life program to improve the condition in buildings that are projected to operate into 2040.