

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 2, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Matthew Duncan and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending April 2, 2021

COVID-19: Y-12 Occupational Health Services began vaccinating employees at Y-12.

Highly Enriched Uranium Materials Facility: Last week, the audible alarm sounded for the criticality accident alarm system (CAAS). This occurred during an off-shift time when no fissile material handling activities were being performed. The operations manager directed the Y-12 plant shift superintendent to declare that the CAAS was not operable and entered the applicable limiting condition of operation. Based on the Y-12 Operations Center not receiving any indications of a fault or trouble with the CAAS and personnel radiation detection instrument readings of zero throughout the area, the operations manager and the Y-12 plant shift superintendent did not believe there was an actual nuclear criticality accident. The shift manager reviewed the local indications on the CAAS cabinet and did not find any active indicators of an abnormal condition. Operations personnel shut down the CAAS and the shift manager determined that the condition was reportable under DOE Order 232.2A for performance degradation of a safety significant system. CNS personnel worked with the CAAS vendor to troubleshoot and repair the system. After repairing the CAAS, they were able to successfully pass the surveillance requirements to exit the limiting condition of operation. CNS conducted an event investigation and established actions to repair the CAAS, evaluate critical spares for CAAS equipment, and evaluate the emergency action level.

Nuclear Criticality Safety: A CNS walkdown team of a shift manager and nuclear criticality safety personnel continued evaluating items in the area of Building 9212 where numerous items have recently been placed under administrative control (see 3/19/21 and 3/26/21 reports). The walkdown team identified several other items that could not be confirmed to be non-fissile, including a vacuum, pumps, heat exchanger, piping, and used absorbent materials. On a related walkdown in another area of Building 9212, personnel found a drain trap that had been removed from a fissile process and was not labeled and stored appropriately. Nuclear criticality safety personnel provided guidance to relocate the drain trap to an approved storage array.

Conduct of Operations: NPO and CNS began conducting a pause among the workforce that focused on a common understanding of verbatim compliance. The NPO and CNS disciplined operations council recommended this pause (see 1/29/21 report). The pause material included several scenarios for work teams to select from for further discussion.

Waste Shipments: In March, the DOE Environmental Management Nevada Program notified NPO that it has reinstated the Y-12 waste certification program for waste not associated with weapons related materials. On Tuesday, NPO notified CNS that the DOE Environmental Management Nevada Program has also approved the shipment and disposal of a Y-12 low-level waste profile under the requirements of the reinstated Y-12 waste certification program. The Y-12 waste certification program and all Y-12 waste profiles had been suspended since July 2019 (see 7/12/19 and 7/19/19 reports).