

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 3, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Matthew Duncan and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending December 3, 2021

Nuclear Criticality Safety: CNS has been permanently isolating out-of-service systems in Building 9212. In 2019, CNS performed an evaluation of the remaining out-of-service systems from a nuclear criticality safety perspective for uranium holdup risk (see 10/25/19 report). This week, results from non-destructive assay measurements taken in preparation for an upcoming system isolation and cleanout indicated it may contain significantly more enriched uranium than assumed at the time of the 2019 evaluation. The 2019 evaluation for this system was based on non-destructive assay data from 2004. The resident inspectors walked down the system with NPO and CNS personnel. The system has been out-of-service since the late 1980s. There are no current indications of water leakage into the equipment, but as a precaution, CNS placed the system enclosure under administrative control and covered the equipment with a tarp. CNS reported the event in ORPS and plans to conduct an event investigation and critique next week.

Building 9212: CNS issued a standing order to establish a material review board process for materials that originated from an off-site facility prior to accepting them in Building 9212. The standing order was a corrective action associated with an event where chemical operators opened a container and found an unexpected material form (see 10/1/21 report). In that event, additional information about the material was available to properly identify its form, but personnel were not required to review those documents prior to accepting the material and repackaging it in Building 9212. The new review process focuses on acceptability of the material form, including any potentially uncharacterized constituents.

In 2018, CNS discovered several instances of unanalyzed material in the Highly Enriched Uranium Materials Facility (HEUMF). Following that event, CNS created an enhanced material review process for HEUMF and Building 9720-5 (see 5/11/18 report). Building 9212 personnel also have a corrective action to review the HEUMF material receipt process as they work towards implementing a permanent change to close the standing order.

Federal Oversight: NPO completed an assessment of the Y-12 disciplined operations improvement strategy and found that the assessed elements were meeting their goals and beginning to drive improvements to disciplined operations performance. NPO identified three observations during the assessment. Those observations related to an opportunity to increase the number of conduct of operations training sessions led by disciplined operations specialists, opportunities to improve training and qualification of disciplined operations specialists, and turnover of disciplined operations specialists. In the transmittal letter, NPO emphasized that as the disciplined operations improvement programs mature, NPO wants to see the line organization taking the lead in driving high standards of performance.

Y-12 Contract: NNSA awarded the management and operating contract for Y-12 and Pantex to Nuclear Production One, LLC, consisting of Fluor Federal Services, Inc. and AECOM Energy & Construction (an Amentum company).