DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 24, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Matthew Duncan and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending September 24, 2021

Building 9212: On Sunday, Y-12 utilities personnel noticed that a wire seal was not present on a street valve cover outside of the valve house for a credited wet-pipe fire suppression system. The facility surveillance supervisor notified the fire department, who responded and checked the associated pressure gauges. The fire department personnel also performed a main drain test to confirm whether water was being supplied to the fire suppression system. However, the communication between the various organizations (operations, fire department, and utilities) resulted in a misunderstanding regarding performing the main drain test. The shift manager, who was not on site, was not aware that the fire department personnel intended to perform a main drain test and he did not formally approve that test. Based on the discussion between the facility surveillance supervisor and the fire department, the fire department personnel thought they had been granted approval to perform the main drain test. CNS identified the communication issue as a gap and will brief personnel on work start communications. The resident inspectors reported on three events with communication issues between facility operations management and fire department personnel over the past year (see 11/20/20, 12/18/20, and 1/15/21 reports).

While chemical operators were unloading a chip basket from a chip cylinder, they noticed that a pin was not properly installed in the chip basket. The mispositioned pin resulted in a gap in the basket that allowed some uranium chips to fall into the chip cylinder. The operators stopped raising the basket out of the chip cylinder and made the appropriate notifications. Personnel clamped the basket and attempted to reinsert it into the chip cylinder. They were eventually able to get the basket back into the chip cylinder but were not able to reinsert the pin. They closed the chip cylinder and placed the chip dolly under administrative control in a storage array. This was a new chip dolly that had not been used before. During the event investigation, personnel discussed whether not verifying the proper pin insertion as part of the quality acceptance criteria for the new chip dollies contributed to this event. CNS created an action to inspect all of the newly procured chip dollies to ensure the pin functions properly prior to releasing them for use.

Nuclear Criticality Safety: Nuclear criticality safety personnel walked down several facilities earlier this year as part of a plan to identify portable items and items removed from fissile systems that should be under nuclear criticality safety control unless it can be demonstrated that the items are exempt (see 4/9/21 report). They recently determined that several items identified during the Building 9215 review constituted a nuclear criticality safety deficiency and need to remain under administrative control until the nuclear criticality safety documentation is revised to include the items and non-destructive assay measurements can be taken.

For the fifth time this year, Building 9204-2E operators found a small, unexpected amount of liquid and discoloration while performing work in a glovebox. The resident inspectors did not find evidence in the CNS event investigation database that CNS has screened or investigated this issue.