

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 11, 2019

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Matthew Duncan and Brandon Weathers, Resident Inspectors  
**SUBJECT:** Oak Ridge Activity Report for Week Ending January 11, 2019

**Building 9995:** A chemist requested that three bottles of unknown legacy liquid material discovered in Building 9995 be sampled to determine their content. These legacy bottles had been left in a former chemist's work area from a project over a year ago. The bottles were moved to a fume hood for sampling that included an isotopic analysis of uranium content. Two of the bottles were found to have higher than expected uranium mass values. The bottles are not approved for use with fissile material and the area normally contains very small quantities of uranium. The personnel responded appropriately by backing off and establishing a Nuclear Criticality Safety (NCS) administratively controlled 15-foot boundary to restrict access to the area. The NCS engineer responsible for Building 9995 responded and provided guidance to space the bottles greater than 12 inches from each other and to collapse the administratively controlled boundary to the fume hood containing the bottles. The bottles remain under NCS administrative control until NCS provides further guidance for movement and safe storage of the material.

**Building 9204-2E:** CNS recently completed a planned, two month outage for the environmental room of Building 9204-2E. This outage was an initial step in CNS's development of an outage organization that can eventually evolve and mature into an outage program to support the Extended Life Program. The Extended Life Program is being undertaken by CNS to ensure continuous, safe, and secure mission capabilities at Y-12 with Building 9204-2E and the 9215 Complex operating beyond their design life. A robust and mature outage program is a major component of the Extended Life Program. The scope of the recent Building 9204-2E outage involved preventive and corrective maintenance activities such as (1) 50-year sprinkler head replacement; (2) overhead crane repair; (3) new communications equipment; (4) updated electronics; (5) installation of a new transformer. CNS plans to issue a report to capture lessons learned from this outage. This experience will be used to establish procedures and integrate outage scheduling and execution for future outages.

**Building 9215:** After completing troubleshooting activities in the basement of Building 9215, two pipefitters noticed visible material on their anti-contamination clothing. The pipefitters asked a chemical operator to contact radiological control personnel for assistance. Radiological control personnel responded and assisted in the removal of the pipefitters' anti-contamination clothing in the work area and they escorted them to the boundary control station. One of the pipefitters alarmed a personnel contamination monitor while exiting the boundary control station. Elevated activity—well below Department of Energy occurrence reporting and processing system thresholds—was found on the calf area of the right leg of this pipefitter's company scrubs. There was no skin contamination.