

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 24, 2026

Oak Ridge Resident Inspectors Activity Report for Week Ending April 24, 2026

Staff Activity: A new Oak Ridge resident inspector (RI) reported for duty this week.

Building 9204-2E: An RI attended a safety-significant work package review meeting to cover the replacement of a defective criticality accident alarm system horn. During a previous attempt to complete this work, the RI and several CNS personnel had questions on the lack of detailed instruction included in the work package, causing CNS management to pause the activity and reschedule the work (see 3/13/2026 report). Discussions at the work package review included suggestions such as directly adding a table that showed the dip switch settings inside the replacement horn or referencing the vendor manual and table number for the settings. These dip switches control the way the horn responds to an input signal and need to be set to allow the continuous 470-hertz clarion tone. The work package had a line copied from the table that did not include the title header with the dip switch reference numbers and could have resulted in maintenance personnel setting the switches in reverse order. CNS revised the work package to include the corrections, replaced the horn, and successfully completed the post-maintenance testing this week.

CNS removed the cover for one of several electrical junction boxes that were installed by the nuclear facility electrical modernization project as a follow-up to the previously discovered electrical code compliance issue (see 4/17/2026 report). CNS did not find any code violations with the installation of the junction box that was opened; however, the box was not very large and included only a small fraction of electrical splices when compared to the electrical junction box that had the problems. CNS also began a causal evaluation of the occurrence reported as a result of the subsequent live electrical wire that was found as part of the initial investigation into the non-compliantly wired junction box and wireways. The RIs continue to follow the causal and remaining extent-of-condition reviews associated with the electrical project work.

Building 9995: Analytical Chemistry Organization (ACO) personnel established an administrative boundary and entered their fissile material abnormal operating procedure when it was discovered that a loaded sample jar failed its “go-no-go” scan for fissile material. ACO staff notified Nuclear Criticality Safety of the non-compliant container and established administrative boundaries around two additional storage locations that contained the same material. Nuclear materials control and accountability (NMC&A) personnel subsequently scanned the two additional areas and found fissile material present. Facility Operations Management (FOM) entered the building’s fissile material limiting condition for operations (LCO) as the exact quantity of fissile material was unknown, and conservative estimates based on process knowledge showed that it was possible to have exceeded the LCO limit. FOM filed an occurrence report for noncompliance of a credited hazard control. NMC&A personnel conducted follow-on nondestructive assay measurements to quantify the exact amount of fissile material. The results of the measurements showed that actual fissile material content was small and did not violate the fissile material limits for Building 9995. FOM exited the LCO and rescinded the occurrence report after determining that the limits were not violated and the condition remained bounded by the safety analysis.