

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 29, 2025

TO: Technical Director
FROM: Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending August 29, 2025

Staff Activity: A Hanford resident inspector (RI) traveled to Oak Ridge this week. The Oak Ridge and Hanford RIs performed walkdowns of Buildings 9204-2E, 9212, 9215, 9995, 9720-5, 9720-82, and the Transuranic Waste Processing Center (TWPC). In Building 9204-2E, the RIs observed air bearing and vibration testing, x-ray operations, and discussed glovebox and building operations with the shift manager. In Building 9212, the RIs performed a walkdown of casting operations. The RIs reviewed Nuclear Criticality Safety (NCS) postings against field conditions to verify compliance and discussed several existing NCS deficiencies during the walkdown, including a recent drum overloading event (see 7/18/2025 report). In Building 9215, the RIs' walkdown focused on electrowinning, floor machining, and the machine coolant areas. The RIs identified non-sprinklered areas created by temporary scaffolding in Buildings 9215 and 9720-82 during the walkdowns, reporting them to the shift managers. At TWPC, the RIs met with facility representatives and conducted a joint walkdown of the processing building to observe ongoing repackaging activities. During the walkdown, the FR and RIs discussed safety and process impacts of having to repackage compliantly loaded removable lid canisters due to the Waste Isolation Pilot Plant's discounted acceptance of that type of container.

Site Infrastructure: CNS, in conjunction with the City of Oak Ridge, conducted an investigation to determine the source of a leak in the water main piping near the two active Y-12 water towers. Subsequently, the investigation determined that the city's 24-inch main line, which feeds the Y-12 water towers and Oak Ridge National Laboratory (ORNL), had developed a leak. The Y-12 water tower provides the water reserve and motive force for the site's potable water systems, which in turn supply the site-wide fire protection systems, including those in the nuclear facilities. Of concern, the underground leakage has resulted in a saturated mass of soil on the hillside that has the potential to displace, which could result in toppling utility poles. CNS evaluated that the mass does not pose a risk to the structural integrity of the water tower foundations. CNS and the City of Oak Ridge isolated the 24-inch line and are completing efforts to stabilize the hillside. An alternate 16-inch water main currently supplies the Y-12 water towers, which in turn, supply ORNL. The increased demand on the water towers by the ORNL alternate feed is not expected to impact the operation of the towers or their ability to provide firewater supply to Y-12 facilities.

Building 9215: DOE's Office of Enterprise Assessments (EA) issued their final report on an Independent Assessment of Conduct of Operations at the Y-12 National Security Complex in Building 9215. The EA team identified six deficiencies as part of their CNS review: three of these were procedure-related, and the other three involved either following processes, control area activities, or lacking a feedback process that was adequate to identify and correct specific conditions. The EA team also identified a deficiency with the Y-12 field office, where they did not reevaluate facility representative coverage at each hazardous facility on a biennial basis as required. Although the EA team did not identify any issues that rose to the level of a finding, these deficiencies are inadequacies in the implementation of an applicable requirement or standard and are expected to be resolved by the site's issues management process.