

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 16, 2025

**TO:** Technical Director  
**FROM:** Oak Ridge Resident Inspectors  
**SUBJECT:** Oak Ridge Activity Report for Week Ending May 16, 2025

**Staff Activity:** A resident inspector (RI) traveled to the Savannah River Site to provide RI site augmentation.

**Building 9215:** CNS is installing the first of several Direct Chip Melt furnaces in O-Wing. Construction workers were installing floor anchors to mount control cabinets, which required drilling several holes into the concrete floor slab. The floor is part of the safety-basis-credited facility structure. When construction workers drilled one of the anchor holes, the drill inadvertently penetrated through the O-Wing floor into the basement. Since the complete penetration of the floor slab was unintended, structural engineering personnel had not evaluated the consequences for structural performance. As a result, CNS entered the potential inadequacy of the safety analysis (PISA) process due to this unanalyzed situation. Structural engineering personnel evaluated the event and determined that the small hole would not impact the facility structure's credited safety function, and there was no concern for further concrete spalling in the O-Wing basement. Based on this evaluation, CNS determined that a PISA did not exist.

**Low Equity Vehicle (LEV):** CNS currently utilizes material transfer vehicles at Y-12 to carry various types of material, including uranium, within the site's protected area. CNS intends to repurpose two of these vehicles for transporting low-equity material outside of the protected area once the West End Protected Area Reduction Project is completed. This material will be Category IV-D or lower, as defined in DOE Order 474.2A, *Nuclear Material Control and Accountability*. The LEV activity will be a new hazard category 2 activity; thus, DOE Order 425.1D, *Verification of Readiness to Start Up or Restart Nuclear Facilities*, requires a contractor readiness assessment and a federal readiness assessment prior to startup of this activity. YFO plans to complete the federal readiness assessment after the contractor readiness assessment. YFO released its plan of action for the federal readiness assessment for the startup of the LEV, outlining the scope of their review and contains 14 core requirements, including: establishment of effective safety management programs, clearly defined stakeholder responsibilities for control of safety, qualifications, facility safety documentation, and implementation of an effective contractor assurance system.

Following DNFSB Recommendation 2010-1, *Safety Analysis Requirements for Defining Adequate Protection for the Public and the Workers*, DOE issued DOE Standard 3009-2014, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis*. The LEV will be the first documented safety analysis at Y-12 to conform to the latest version of the DOE standard. DOE Standard 3009-2014 has long been regarded by the Board as containing significantly clearer safety requirements than its predecessor, tangibly strengthening safety as outlined in the Board April 1, 2015, letter to Secretary of Energy Moniz and reaffirmed in its December 6, 2024, letter to Secretary of Energy Granholm. An RI will shadow the execution of the federal readiness assessment to provide independent oversight of assessment activities.