

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 28, 2025

TO: Technical Director
FROM: Oak Ridge Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending February 28, 2025

Qualification Board: CNS personnel have not consistently implemented certain procedural requirements for oral examinations and are in the process of making improvements. For instance, CNS procedures currently require a binary “pass or fail” approach to the evaluation of a candidate’s performance on questions. While this is a known shortcoming and part of an upcoming procedure revision, this limitation presented additional challenges during a recent candidate evaluation for a certified position in a nuclear facility. Additionally, the CNS procedure allows candidates to bring their own reference material; however, this practice requires the chair of the board to approve the use of these materials to ensure only the appropriate materials are included, such as safety basis documents or approved procedures. Previously, YFO personnel noted an instance where a candidate was permitted to sit for an oral examination with personal notes. During a recent board, the CNS personnel conducting the evaluation did not review the candidate’s personal reference material beforehand. After the evaluation, the YFO facility representative conducted an independent review. This review revealed that the candidate’s reference materials used during the examination included several pages of questions and answers, some of which matched those asked during the examination. CNS is investigating the issue to assess the scope of the compromised exam question bank and its potential impact.

Building 9212: A resident inspector (RI) attended the pre-job brief and observed the system level testing associated with the newly installed calciner. The calciner converts dilute solutions to stable solid oxide forms. CNS personnel view the completion of the calciner project as an important milestone for long-term risk reduction, material de-inventory, and eventual decommissioning of Building 9212. The effort has experienced delays, which has resulted in the operation of legacy systems longer than originally planned (see 5/13/2022 and 12/29/2023 reports). CNS personnel are conducting the system level testing via a test instruction that is approved by a review board made up of subject matter experts of various disciplines. The calciner system is being tested with potable water and is not currently tied into any fissile material containing systems; however, the system is co-located with other piping containing fissile material. Considering this, CNS’s test instructions conservatively require the response to any spills or leaks to be in accordance with the abnormal operating procedure for fissile material spills. The RI observed various testing including leak checking of instrument air and solution lines, human machine interface testing, and pump operations. The RI interviewed the testing supervisor on various operational and safety controls for the operation and found the supervisor’s level of knowledge extensive. Discussions with the testing supervisor revealed extensive knowledge of the operational and safety controls associated with the system. Construction is nearly complete. Subsequently, CNS personnel will initiate integrated system testing followed by readiness activities, scheduled for November 2025.