DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 1, 2018

TO: S. A. Stokes, Technical Director
FROM: D. J. Brown and Z. C. McCabe, Acting Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending June 1, 2018

9995 Laboratory: On April 23, 2018, the 9995 laboratory system that measures the temperature inside multiple refrigerators that hold temperature-sensitive samples lost power. The loss of power was caused by a planned electrical outage; however, no one identified that this system would be affected. Additionally, the failure of the system to measure the temperature was not identified by 9995 personnel for 20 days despite a procedure requiring a daily check. Although no one was familiar with this procedure or designated to be the individual responsible for performing the check, the CNS fact finding investigation identified that multiple people were trained to perform this task. A backup generator supplied the refrigerators with power during the outage. According to 9995 personnel, there is no reason to suspect that the sample temperatures were not maintained appropriately over the twenty day period. 9995 personnel identified multiple corrective actions including an action to evaluate the procedure for improvements.

Sewer Line Break: Y-12 National Security Complex (Y-12) personnel identified several underground services to avoid while digging for a new flagpole installation. It is normal for Y-12 personnel to encounter and remove small legacy concrete objects while digging. During this evolution, Y-12 personnel encountered a concrete mass and assumed it was a fence post foundation. After lifting the concrete with a backhoe, they discovered that it surrounded a sewer line causing it to break. Y-12 personnel immediately stopped work, made appropriate notifications, and were able to repair the line later that day. On May 31, 2018, Y-12 personnel conducted a fact finding investigation and identified several corrective actions.

Fact Finding Corrective Actions: The acting resident inspectors have observed the development and assigning of corrective actions at four fact finding meetings (see above and 5/25/2018 report). Event investigations that result in a fact finding meeting like these are limited to immediate and near/midterm corrective actions (interpreted as being able to be resolved within working 30 days) per the CNS Event Recovery and Notification Process. This constraint appears to have led to a reluctance of CNS personnel to commit to certain corrective actions known to be necessary because they cannot be completed within 30 days. For instance, the corrective action mentioned above, “evaluate the procedure for improvements,” was developed while the personnel involved are aware of necessary changes to the procedure. Corrective actions like this rely on the individual doing the evaluation to identify a known issue for a second time in order for it to be formally captured rather than capturing it through the fact finding investigation process. Contrarily, if the responsible manager determines that a critique is necessary after the fact finding investigation, additional follow-up actions and additional investigations may be assigned. Since May 24, 2017, CNS has held 128 fact finding meetings and approximately 30 critiques at Y-12. CNS has a significance level process to determine if a causal analysis and corrective action plan are necessary, however, many events will not require either unless directed by CNS management. The acting resident inspector provided this observation to the responsible CNS manager who explained that the 30 day limit is not a requirement.