DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 10, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Matthew Duncan and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending September 10, 2021

Nuclear Criticality Safety: Two years ago, CNS issued a standing order to require use of its formal event investigation process for all nuclear criticality safety deficiencies. At the time, it had been required only for those deficiencies resulting from a personnel error (see 7/19/19 and 8/2/19 reports). Last week, CNS canceled the standing order. CNS revised the field report form to require documentation of the determined cause, contributing cause, and corrective/proactive actions to correct the scenario and prevent recurrence. This informal investigation process will involve the criticality safety officer, nuclear criticality safety engineering, process engineering, and the production support manager. The existing corrective action review board will review each field report form for approval. This new informal investigation process will cover both deficiencies and minor non-compliances. The new process will not prohibit CNS from also using the formal process. For instance, nuclear criticality safety events that trigger reportability criteria per DOE Order 232.2A, *Occurrence Reporting and Processing of Operations Information* will also use the formal event investigation process. The resident inspectors note that many abnormal events at Y-12 are evaluated outside of the site-wide process as many organizations have separate investigation processes. The site-wide process is typically more visible to NPO and the DNFSB resident inspectors. It also results in a widely distributed event notification to timely inform senior contractor and NPO management, as well as the DNFSB resident inspectors, of the event. The lack of formal investigations and event notifications for some nuclear criticality safety events was the genesis of the recently canceled standing order.

The CNS nuclear criticality safety program defines fissile control areas as designated locations in nuclear facilities where fissile material activities can be conducted in accordance with established nuclear criticality safety requirements. In April, CNS issued a plan to review all fissile control areas in several Y-12 facilities because of finding portable items or removed equipment that may contain fissile material (see 4/9/21 report). During that review, CNS found that a list of all Y-12 fissile control areas did not exist. As a result, CNS added new actions to the review plan that included developing a comprehensive list of fissile control areas, appropriately posting any new fissile control areas that may be identified, creating drawings that depict the fissile control areas, and reviewing those areas per the existing plan. CNS will also update applicable command media for clarification of fissile control areas.

Emergency Management: Last week, Y-12 conducted a full-participation exercise with the Office of Secure Transportation. The simulated event was a vehicle accident involving a safeguards transport and a fuel truck, resulting in a fire and injuries, but no radiological release.

Return to Work Pause: CNS conducted a return to work pause after the Labor Day holiday, reminding employees about the importance of verbatim compliance, which CNS defines as performing work as written in procedures, work packages, or other written instructions. The short meetings also covered stop/pause/suspend work authority, vehicle safety, an updated COVID-19 screening questionnaire, and the “good catch” program.