

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 5, 2020

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Matthew Duncan and Brandon Weathers, Resident Inspectors  
**SUBJECT:** Oak Ridge Activity Report for Week Ending June 5, 2020

**COVID-19:** There have been no significant changes in operating posture at Y-12 over the past two weeks. CNS has resumed most production operations and is actively working to restart additional operations which require bringing many high-risk employees back onsite. The Y-12 occupational health services organization must approve each high-risk employee who returns based on a work plan that describes how the risk of COVID-19 exposure will be minimized. Oak Ridge Office of Environmental Management contractors Isotek, LLC (Isotek) and North Wind Solutions (North Wind) have brought some additional personnel back to their facilities and offices. Isotek has focused on implementing COVID-19 precautions for when operations resume in Buildings 3019 and 2026. North Wind has also implemented COVID-19 precautions at the Transuranic Waste Processing Center and has been conducting an implementation verification review for overpacking a group of containers.

**Calciner Project:** Last week, NNSA approved the Critical Decision (CD)-2/3 (Approve Performance Baseline and Start of Execution) package for the Building 9212 calciner project. The calciner is a key new process that will facilitate transitioning production operations out of Building 9212. The calciner provides the capability to convert low equity uranium-bearing solutions to a stable oxide. Without this capability, NNSA would have to continue storing low-equity solutions or process them through the existing purification equipment. NNSA estimates reaching CD-4 (Start of Operations or Project Completion) in September 2023.

**Nuclear Criticality Safety:** CNS recently completed a management assessment of the uranium holdup survey program (UHSP) to evaluate the health of the program. CNS uses the UHSP to manage holdup monitoring surveys that are designed to detect enriched uranium accumulations within process equipment and support systems to meet objectives of both the nuclear criticality safety and nuclear material control and accountability organizations. The assessment team concluded that the implementation and management of the UHSP was effective. The assessment team did not identify any findings, but noted several lower tier issues (five weaknesses, six observations, and three opportunities for improvement) and five strengths. Multiple weaknesses were related to a lack of necessary detail in the UHSP procedure. For instance, survey personnel are required to perform a quality control measurement if a survey sequence cannot be completed in the prescribed order. The assessment team found that the survey measurement personnel observed during the assessment were aware of this requirement, but the requirement is not in the UHSP procedure. The UHSP procedure also states that the measurement team typically consists of two trained instrument operators. The assessment team noted that the composition of the team should be evaluated to determine whether two trained instrument operators are required or if only one is acceptable. Based on a review of survey point changes between the years 2016-2018, the assessment team found that the most common change was to reduce the high alarm limit (conservative change) and identified this as a strength. The resident inspectors note that this data also showed that the second most common change was to make the measurements less frequent, which could be less conservative.