

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

July 12, 2018

TO: C. Roscetti, Technical Director
FROM: D. Owen, Acting Resident Inspector
SUBJECT: Oak Ridge Activity Report for Week Ending July 13, 2018

Building 9212 Casting: At the end of June, CNS Enriched Uranium Operations (EUO) completed its initial resumption phase (Phase I) of casting operations. Phase I involved enhanced oversight, monitoring of casting line accumulations, and a limit of 16 castings per line for consolidation-type castings followed by cleanout per the Casting Enhanced Oversight Management Plan (see 6/21/18 and 6/28/18 reports). This week, CNS issued the EUO Casting Management Plan for Phase II that expands the scope of castings to other casting types (except for briquettes and pallet scrap) and initiated Phase II operations under that plan. The Phase II plan allows for up to the “equivalent” of 24 consolidation-type castings per line prior to casting line clean-out. For this limit, other casting types are each assigned an equivalency factor based on prior data of make-up weight to knock-out weight differences for that specific casting type. The Phase II plan calls for continued monitoring of furnace bowls after each casting run for visible accumulations. The acting resident inspector observed certain Phase II casting operations this week.

Nuclear Criticality Safety Improvement Initiative: In April 2018, CNS updated the extent-of-condition plan associated with Building 9212 enriched uranium accumulation issues. This plan listed a number of improvement actions that were to be refined and incorporated into a site-wide initiative to improve stewardship, integration and execution of the Y-12 criticality safety program (see 5/4/18 report). CNS has developed a plan for the site-wide initiative with the stated objective of reducing the risk of inadvertent material accumulations by improving material monitoring amongst organizations that have the opportunity to identify atypical or changing conditions. The plan identifies near-term and longer-term improvement actions and target dates that range from June 2018 to February 2019.

Building 9995/Criticality Accident Alarm System (CAAS): Last week, NPO approved and issued an addendum to its Safety Evaluation Report (SER) for the Building 9995 Safety Analysis Report. The SER addendum provides NPO’s evaluation of the recent CNS document change notice that clarifies which specific areas within Building 9995 require overlapping CAAS coverage based on evaluation for potential inadvertent nuclear criticality (see 6/28/18 report). The SER addendum noted the questioning attitude and attention to detail by the CNS engineer who discovered the need for the clarification.

Building 9206 Criticality Safety. The acting resident inspector accompanied NPO and CNS criticality safety personnel on a periodic, planned walk-down of Building 9206 this week. Due to remaining hold-up and solutions remnant in this facility, criticality safety controls (including CAAS coverage) are still in place. Deactivation activities to process solution safe bottles and cleanout process equipment continue towards eventual (following a multi-year effort) declaration of a criticality event as incredible and elimination of the need for the criticality safety controls.