

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 5, 2016

TO: Steven Stokes, Technical Director  
FROM: William Linzau and Rory Rauch, Site Representatives  
SUBJECT: Oak Ridge Activity Report for Week Ending February 5, 2016

D. Andersen and R. Jackson were at Y-12 to meet with Uranium Processing Facility (UPF) project personnel, meet with CNS structural subject matter experts to discuss structural concerns with existing facilities, and walk down Buildings 9212, 9215, and 9204-2E.

**Building 9212:** Last week, CNS declared an Unreviewed Safety Question (USQ) in response to the issue involving the credited isolation function of an accountable steam condensate (ASC) system in Building 9212 (see 1/15/16 report). To support the USQ determination, CNS engineers updated the calculation that provides the basis for the maximum allowable response time of the ASC system's isolation valve. The calculation used new data for the maximum anticipated condensate flow rate and the resultant response time was no longer bounded by the value specified in the Building 9212 technical safety requirements (TSRs). CNS has since installed a new condensate trap that limits the maximum possible condensate flow rate through the system. Using the new flow rate, CNS engineers have updated the calculation for the maximum allowable response time of the system to demonstrate that the response time specified in the TSRs once again bounds system performance. The process system upstream of this ASC system remains on hold pending NPO approval of corrective actions. It should be noted that this issue was discovered through a follow-up action from a review of inputs and assumptions in safety basis calculations that was undertaken following the discovery of an error in a calculation supporting the E-Wing dry vacuum system (see 9/5/14 report).

**Oak Ridge National Laboratory:** Last week, UCOR declared a TSR violation at Building 7879, which stores drums with transuranic waste. The safety basis controls for the building include a Specific Administrative Control (SAC) that prohibits hot work in or within 30 feet of the building. Last week, a UT-Battelle (UT-B) maintenance team started work to replace the main isolation valve for the building's dry pipe fire suppression system. The work required cutting the inlet pipe section using a spark-generating device. The cutting activity was stopped shortly after it started when the UCOR Facility Manager realized that work was being performed under a hot work permit. UCOR had coordinated the work planning for the activity but did not recognize that the cutting activity would be considered hot work. Prior to the work activity, the facility had entered a limiting condition of operation (LCO) as the water supply to the sprinklers had to be isolated. This LCO will remain in effect until work is completed. This week, UCOR wrote a standing order that directs additional reviews and oversight to ensure safety basis requirements are met during the completion of this work. UT-B has procured a non-spark-generating saw to allow the work to continue and maintain compliance with the SAC.

**Building 9204-2:** Last weekend, two Y-12 Security Police Officers (SPOs) patrolling near Building 9204-2 smelled smoke and entered the building to investigate. The SPOs discovered a drum of oily rags (mineral oil with low combustibility) smoldering and emitting smoke. They notified Y-12 Fire Department personnel who arrived at the scene within a few minutes and extinguished the smoldering rags. The drum had a hinged lid to minimize available oxygen when closed but the lid was propped open because the drum was overfilled. The drum is labeled for collection of "mineral oil and rags" and the floor of the staging location was also similarly marked. The room has fire suppression sprinklers but there are no smoke detectors for this area. The cause of the fire is still being investigated. In the interim, CNS management has directed personnel to check the conditions at other waste storage locations and plans to brief workers on the importance of ensuring that drum lids for this type of material are closed when unattended.