

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 29, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Matthew Duncan and Brandon Weathers, Resident Inspectors
SUBJECT: Oak Ridge Activity Report for Week Ending October 29, 2021

Building 9212: A resident inspector walked down and observed operations in the casting area of the facility. While he was in the area, chemical operators discovered liquid in a glovebox during their morning rounds and established administrative control of the area due to this nuclear criticality safety concern. No fissile material was in the glovebox other than residual material from prior operations. The resident inspector observed operations and criticality safety personnel respond. All actions appeared appropriate. They suspected that the liquid was pulled into the glovebox from a seal pot, which may have occurred due to the movement of dampers in the ventilation system. Over the weekend, CNS had to take the plant air system out of service during a planned outage. Restarting the plant air system may have caused some dampers to move and created a pressure transient in the ventilation system that connected to the glovebox. Nuclear criticality safety engineers provided guidance for operators to absorb the liquid and store the absorbent material in an authorized container.

Transuranic Waste Processing Center (TWPC): OREM revised a safety evaluation report to extend the termination date of a Justification for Continued Operation (JCO) to December 28, 2021. The JCO applied to the discovery of additional material at risk in the form of oxides at TWPC. North Wind Solutions submitted the Evaluation of the Safety of the Situation and the original revision of the JCO to OREM in December 2019. North Wind Solutions updated the safety basis to resolve the condition but has been working to resolve several issues which has delayed implementing the revised safety basis. The JCO has been implemented and its interim controls and compensatory measures have remained in place. Along with the recent extension, OREM has directed North Wind Solutions to provide a strategy, in a revised implementation plan, that ensures “expeditious closure of the JCO no later than December 28, 2021.” OREM expects North Wind Solutions to implement the revised safety basis in two parts. The first part will focus on the controls needed to safely store the additional oxide materials. The second part of the implementation will deal with how to disposition the oxide.

Oak Ridge Environmental Management: DOE’s Office of Environmental Management awarded the Oak Ridge Reservation Cleanup Contract to a limited liability company consisting of companies from Amentum, Jacobs, and Honeywell. The current contract expires January 31, 2022, or July 31, 2022, if extended. The new contract covers the Transuranic Waste Processing Center. It does not cover uranium-233 storage and processing at Buildings 3019 and 2026.

Building 9206: CNS completed a causal analysis for the ORPS-reportable release of contaminated debris out of a Building 9206 stack (see 10/1/21 report). The cause was that “Facility and Deactivation Project Management did not identify the need to change the approach to prevent the spread of contamination beyond the system boundaries, specifically the potential for contaminated legacy material to be exhausted out the stack.” An opportunity for improvement was “[i]n future planning for deactivation of ductwork, consideration should be given for the potential of unknown materials present in the ductwork.”