

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

TO: Steven Stokes, Technical Director
FROM: William Linzau and Rory Rauch, Site Representatives
SUBJECT: Oak Ridge Activity Report for Week Ending February 6, 2015

Staff members R. Jackson and A. Poloski were at Y-12 to walkdown various facilities and receive briefings on Uranium Processing Facility (UPF) project activities. R. Oberreuter was also on site to observe NPO oversight activities.

Aging Infrastructure: CNS recently finalized a plan that documents the culmination of a year-long effort to address the NNSA Deputy Administrator for Defense Program's (NA-10) request for the Y-12 contractor to develop a comprehensive uranium infrastructure strategy (see 2/14/14 report). B&W provided a draft strategy to NA-10 last spring; however, several key activities delayed its finalization, such as the Red Team alternatives evaluation for the UPF project, input from the newly appointed Uranium Program Manager (UPM), and contract transition.

This *Implementation Plan for the Highly Enriched Uranium Mission Strategy at the Y-12 National Security Complex* is intended to establish the tasks required to sustain the highly enriched uranium mission capabilities while driving down nuclear safety and operational risk. The plan divides the strategy into three phases, but only discusses specific milestones and funding sources related to elements of phase one: the actions required to transition Building 9212 enriched uranium (EU) processing capabilities to other existing facilities or UPF by 2025. This phase includes four elements – material-at-risk (MAR) reduction, process reinvestments (e.g., enhanced maintenance strategies, electrolytic refining deployment), infrastructure upgrades, and the UPF project. Several phase one actions are already underway. For example, last week CNS issued a standing order that administratively reduces the Building 9215 EU MAR limits by 88 percent. Previously, CNS had reduced Building 9212 EU MAR limits by 40 percent (see 11/21/14 report). In addition, the UPM and the NPO Manager issued a joint letter this week challenging CNS to develop a plan to double the purified metal production in Building 9212 to an annualized rate of 1000 kg. This change would aid MAR reduction efforts by increasing the rate at which EU is processed into forms suitable for transfer from Building 9212.

Phase two involves the replacement of Buildings 9215 and 9995 capabilities within a new build by the late 2030s. Phase three involves actions to sustain the capabilities within Building 9204-2E, which is considered an enduring facility. Replacement of Building 9204-2E capabilities within a new build would take place after 2040.

Transuranic Waste Processing Center (TWPC): Late last week, WAI began corrective maintenance on a ventilation blower that supports Box Breakdown Area operations and a solid waste processing glovebox. Prior to conducting the maintenance, the shift manager entered "Condition A" of the applicable limiting conditions of operation (LCO), which restricted operations in these areas while the exhaust system was inoperable. Following the maintenance activity, personnel performed operability checks and noted some issues that would require additional maintenance. Personnel secured the blower and made plans to address these issues after the weekend. "Condition A" of the LCO for the glovebox allows personnel 20 hours to place the glovebox into a cold standby mode in which no radiological or hazardous materials are allowed to be present. If the actions in "Condition A" cannot be met, "Condition B" must be entered. "Condition B" requires the electrical circuits supplying the enclosures in the area to be de-energized. The following Monday, WAI declared a technical safety requirement violation when operations personnel recognized that they had not completed the "Condition A" actions and failed to enter "Condition B." WAI immediately took actions to comply with the LCO, completed repairs to the blower, and restored the operability of this ventilation system.