

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 4, 2018

TO: Steven A. Stokes, Technical Director
FROM: Christina T. Beaty, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for April 2018

DNFSB Staff Activity: There were no staff visits to WIPP this month. Staff oversight during FY-2018 has averaged 2.1 person-weeks/month.

Ground Control. WIPP workers completed the installation of the last of four crib sets scheduled to be installed in the plan to abandon the south end of the mine.

Waste Shipments. WIPP paused waste shipments from Idaho National Laboratory (INL) this month after waste drums at INL experienced unexpected thermal events. WIPP lifted the shipment suspension after confirming that the suspect drums had not been cleared for shipment to WIPP.

Safety Basis: Nuclear Waste Partnership, LLC (NWP), requested permission to extend the implementation date for documented safety analysis (DSA) revision 6a past the April 27, 2018 implementation due date. Carlsbad Field Office (CBFO) approved the deferral of DSA revision 6a implementation to August 3, 2018. Title 10, Code of Federal Regulations, §830.202, requires an annual update to the DSA. DSA revision 6a is the update to the previous revision implemented in May 2016.

Safety Significant Confinement Ventilation System (SSCVS) Design Process. CBFO approved the preliminary DSA for SSCVS with modifications that require the use of DOE Standard 1195-2011, *Design of Safety Significant Safety Instrumented Systems Used at DOE Nonreactor Nuclear Facilities*.

Unplanned Bus Outage. WIPP remains in an abnormal electrical line-up, due to the unexpected loss of B bus on March 22, 2018. B bus, one of WIPP's two 13.8kV electrical distribution buses that power all plant electrical equipment, remains de-energized while all site loads are powered by the A bus. The plant electrical distribution system remains in a degraded status; a single failure to A bus will result in the temporary loss of all site electrical power. WIPP suspects that the event was caused by the failure of an abandoned-in-place current transformer on one phase of the B bus. The other two phases of B bus and all three phases of A bus have matching legacy current transformers.

NWP has not provided an occurrence report for this event, any other form of report on the event, or any contingency actions that WIPP has established to respond to subsequent failures while in this degraded condition. NWP has determined that this event does not require tracking in WIPP's corrective action system. DNFSB staff has requested the details of this event and any subsequent analysis.