

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 1, 2017

**TO:** Steven Stokes, Technical Director  
**FROM:** Chris Beaty, WIPP Cognizant Engineer  
**SUBJECT:** Waste Isolation Pilot Plant (WIPP) Report for November 2017

**DNFSB Staff Activity:** C. Beaty, K. Deutsch, and R. Quirk were on site the week of November 27<sup>th</sup> to provide routine oversight and complete review follow-up for the safety instrument alarm system (SIAS). Staff oversight during FY-2018 has averaged 2.5 person-weeks/month.

**Mine Maintenance.** Some experienced WIPP personnel expressed a growing concern about the adequacy of plans to maintain the stability of the E-140 drift, the main access route for transport of waste to the disposal rooms in panels 7 and 8.

The contractor continues to monitor the Panel 7 Room 6 convergence rates used to predict when an expected roof fall may occur. The measured convergence rates have decreased, indicating that the expected major roof fall is likely delayed.

The contractor has increased waste placement operations from two to three days a week, which has reduced bolting operations due to limited ventilation to support both activities.

**Fire Protection.** On November 21, 2017, the Deputy Assistant Secretary for Safety, Security, and Quality Assurance (EM-3.1) sent a memo that requires WIPP to provide a plan for prioritizing and funding a list of WIPP's fire protection issues.

WIPP had an inadvertent discharge of a fire suppression system on November 14. The cause was the operator round sheet was not updated to match the current system configuration. A newly qualified operator repositioned a valve to match the listed position, which released the nitrogen.

**Emergency Evacuation.** The motor on an electric cart in the underground was discovered to be smoking on November 27. All personnel donned breathing devices and completed the evacuation within the one hour time limit.

**Series 860 Mine Fan Reliability.** One series 860 fan is required to be in-service to provide the baseline underground ventilation flow. The 860 fan maintenance has been an ongoing issue (tracked in monthly reports since July) due to WIPP's ineffectiveness in addressing key maintenance issues. WIPP recently shifted to running the 860A fan as the in-service fan when the 860B fan showed excessive vibrations. The 860A fan has recently been returned to service following a complete overhaul. Despite the recent maintenance, the 860A is also running with excessive vibrations. The 860C fan is degraded and remains solely available for emergency use.