

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 6, 2017

**TO:** Steven Stokes, Technical Director  
**FROM:** Leigh Lin, WIPP Cognizant Engineer  
**SUBJECT:** Waste Isolation Pilot Plant (WIPP) Report for September 2017

**DNFSB Staff Activity:** A. Velazquez was on site to discuss the agenda on the Permanent Ventilation System New Filter Building 90% design review and to perform a walk-down of the underground. Staff oversight during FY-2017 has averaged 3.1 person-weeks/month.

**Supplemental Ventilation System (SVS) Readiness Assessments.** The contractor terminated an initial contractor readiness assessment (CRA) the week of July 24, 2017 when it became clear the site was not ready for SVS operations. A second CRA, yielding 2 pre-start and 2 post-start findings, was successfully completed during September 11-15. One pre-start was for not having all essential drawings available; the second for not including a list of manageable open items in the start-up plan. DOE plans to verify readiness with a federal readiness assessment (FRA) the first week of October.

**Series 860 Mine Fans Maintenance.** Any of the three safety-significant 860 series mine exhaust fans (860A, 860B, 860C) provide a baseline 60,000 cubic feet per minute of airflow for WIPP's HEPA filtered underground ventilation system (UVS). These fans provide desired redundancy for maintaining baseline UVS airflow. However, fan maintenance has been problematic (See "Facility Maintenance" in July monthly WIPP Report). Only the in-service 860B fan has no known significant maintenance problems. This situation has persisted for several months due to WIPP contractor effectiveness at addressing 860 fan maintenance issues.

**Technical Safety Requirements (TSR) Violation.** The contractor declared a TSR violation on September 18, 2017 when three workers entered a room that required airflow to be verified prior to entry. The surveillance requirement to verify airflow direction across the active waste face to the exhaust drift (via a smoke test or a calibrated anemometer) is used to ensure safe entry and habitation of the active room. CBFO is looking at the conduct of operations implementation in a future assessment, including formalization of log keeping and operator rounds to reduce similar human performance errors in the future.

**Anticipated Roof Fall.** Room 6 of Panel 7 is expected to experience a full room roof fall within 1-2 months based on accelerating convergence rates. Room 6 was partially roof bolted prior to February 2014 but never re-bolted. The convergence rates measured appear similar to those observed prior to the November 2016 Room 4, Panel 7 roof fall. Room 6 contains six pieces of contaminated equipment containing diesel fuel and hydraulic fluids abandoned there since the February 2014 radiological release event. The contractor is continuing to monitor accelerating convergence rates and when the fall appears near it plans to cease Panel 7 disposal operations. The fall is not expected to impact the rest of Panel 7 including the TRU waste containers that have been permanently disposed in the panel.