

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 4, 2017

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

**DNFSB Staff Activity:** R. Quirk was on site performing routine oversight and for training on July 10-14. D. Winters and A. Martin were on site to observe the contractor Readiness Assessment (CRA) and the Department of Energy (DOE) Line Management Assessment (LMA) for startup of the Supplemental Ventilation System (SVS) on July 24-27. Staff oversight during FY-2017 has averaged 3.3 person-weeks/month.

**Technical Safety Requirements (TSR) Violation.** The contractor, Nuclear Waste Partnership LLC (NWP), declared a TSR violation on July 26, 2017 when they determined the fire suppression system (FSS) on a waste transport vehicle used to deliver waste payloads to the disposal panel was not compliant with requirements. The TSR requires underground vehicles/equipment FSSs to be installed in accordance with the manufacturer's design, installation, and maintenance manual. The contractor identified issues with (1) the transporter FSS having more than the allowed fittings per length of hose on the agent distribution system, and (2) the radius bend on at least two hoses exceeding the bend radius specified by the manufacturer. The underground vehicles/equipment FSSs are credited in the safety basis to extinguish a fire on the vehicle/equipment upon detection of a developing stage fire to prevent a pool fire from impacting waste containers.

**Facility Maintenance.** Of the three 860 fans that are key parts of the safety significant Underground Ventilation System, the 860A fan has been out of service since June 12 and the 860C fan has been emergency use only since June 7. Backup power is provided by either of two diesel generators, one of which was out of service from May 31-July 28. Numerous tornado doors to key facilities have had significant deficiencies for months. Several buildings have been without fire suppression water for months. Ground control in the underground continues to be a problem; workers are prohibited from entering large areas of the underground until areas of the back (ceiling) and ribs (walls) are stabilized and floor heaves are removed. The number of impairments and the time it takes to repair items indicate that the contractor is struggling to maintain facility infrastructure.

**SVS Readiness Activities.** The Management Self-Assessment on startup of the SVS was completed on July 14 and identified 18 pre-start findings and 2 post-start findings. The CRA commenced on July 24. The CRA team identified issues with operator knowledge and training based on interviews with SVS operations personnel and operational demonstrations. The CRA team shared their initial findings with NWP management, and NWP management decided to terminate the CRA. A new CRA will be performed at a future date.