

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 2, 2023

TO: Katherine R. Herrera, Acting Technical Director
FROM: Alexander Velazquez-Lozada, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for May 2023

DNFSB Staff Activity. The Board's staff participated in regular conference calls to maintain cognizance of site activities. A. Velazquez-Lozada provided onsite oversight the week of May 22nd.

Underground Ventilation System. The 860-B fan remains out of service. After the completion of repairs of the bearings by onsite personnel, the vendor performed an alignment of the shafts and bearings. However, the fan continued to show signs of a slight imbalance of the fan wheel. Further analysis performed by the vendor showed that the 860-B fan and also the 960-B fan still have excessive vibration. The vendor placed balancing weights and tightened bolts on the fans to return the fans to service. These fans provide the required ventilation to conduct mining and waste emplacing operations in the underground in a safe manner. The 700-C unfiltered exhaust fan was also repaired and put back in service during this reporting period. For certain operations, running the ventilation system in unfiltered mode with the 700-C fan reduces loading on the underground ventilation filters—for example, during probe hole drilling, which creates a significant amount of salt dust. The salt dust can clog or reduce the life-expectancy of the filters in the underground ventilation systems.

Capital Projects. Salado Isolation Mining Contractors, LLC (SIMCO), completed some of the physical repairs in roof areas related to recent non-compliance reports (NCR) in the New Filter Building of the Safety Significant Confinement Ventilation System. Most of the NCRs are related to cracks observed in already installed concrete roof panels.

The subcontractor Harrison Western-Shaft Sinkers Joint Venture (HWSS) continues sinking operations in the 5th shaft (Utility Shaft) at an average rate of 6 to 8 feet of depth per day. The total depth of the shaft by the end of this reporting period was approximately 1,920 feet. During this reporting period, Board's staff and Carlsbad Field Office (CBFO) personnel independently inspected the bottom of the shaft and observed the effectiveness of the temporary water-ring. The water-ring is installed near the bottom of the shaft liner to stem the flow of water from behind the liner into the shaft. CBFO personnel reported that the water-ring is effectively catching and channeling the water flowing down the shaft liner, which prevents it from continuously running down the walls and causing salt erosion. CBFO and Board's staff personnel observed water drips, which appeared to be concentrated on one quadrant of the suspended platform. The water-ring seems to provide an effective short-term solution (but not necessarily a long-term solution) to address the water in-flow into the shaft.

Closure of Panel 7. CBFO personnel reported that the Underground Hazardous Waste Disposal Unit - Panel 7 has been closed as certified by an independent New Mexico Registered Professional Engineer. Closure of Panel 7 was performed in accordance with the requirements of the Hazardous Waste Facility Permit. In particular, the permit required the construction and installation of "substantial barriers" at both the exhaust and intake openings of Panel 7.