

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 2, 2024

**TO:** Katherine R. Herrera, Acting Technical Director  
**FROM:** Erin A. McCullough, Cognizant Engineer  
**SUBJECT:** Waste Isolation Pilot Plant (WIPP) Report for January 2024

**DNFSB Staff Activity.** The Board's WIPP cognizant engineer held weekly meetings to maintain awareness of mining and waste handling activities. During the week of January 29, 2024, the Board's cognizant engineer visited the Department of Energy Carlsbad Field Office (CBFO) to complete access trainings. A Board's staff review team began assessing the adequacy of the WIPP Documented Safety Analysis and corresponding safety management programs applicable to the Salt Handling Shaft to identify any potential nuclear safety concerns (see November and December 2023 reports).

**Salt Handling Shaft Taken Out of Service Due to Failed Structural Condition Inspection.** The Board's staff remains concerned regarding the lack of formal analysis covering the nuclear safety and operational impacts if Salado Isolation Mining Contractors, LLC (SIMCO) must take the Salt Handling Shaft out of service (see December 2023 report). On January 4, 2024, an operator performing a preventative maintenance inspection rated the shaft as unsatisfactory because the structural steel in the salt loading pocket was in an overstress condition from the salt creep. Upon further investigation, CBFO leadership communicated to the Board's staff that the operator's perception of the overstress condition resulted from a temporary structural modification that had recently expired, though no visible changes in the structural condition occurred. The Board's staff noted that neither the Nonconformance Report nor the Evaluation of Technical Operability created for this issue mention the expired structural modification. These documents also do not convey an assessment of any safety impacts or establish return to service acceptance criteria. SIMCO lifted operability restrictions days later without addressing the initial basis for the out of service condition.

**Utility Shaft Construction Project Work Status.** On December 16, 2023, Harrison Western Shaft Sinkers JV, LLC received a partial work release authorization from SIMCO to perform inspections and other recovery activities following the latest hoisting and rigging incident at the Utility Shaft (See November 2023 Monthly Report). While performing these limited activities, approximately 900 feet of blast line that was no longer in use fell past the work crew and coiled onto the unattended station steelwork below. The work crew was located at approximately 1,950 feet and were working from a platform under cover of the metal overhead protection. No injuries resulted from the incident. A partial work release for shaft recovery activities is still in effect, delaying construction work progress throughout most of January 2024.

**Seismic Monitoring System Out of Service.** The surface seismic system has failed and is unable to perform its functional requirements, including alarming and collecting ground acceleration data to inform site personnel when to conduct inspections on Documented Safety Analysis credited structures and systems. Site personnel determined that data from nearby U.S. Geological Survey monitoring stations do not adequately describe the impact of seismic activity at WIPP and are considering near-term compensatory measures.