

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

August 2, 2024

**TO:** Timothy J. Dwyer, Technical Director  
**FROM:** Erin A. McCullough, Cognizant Engineer  
**SUBJECT:** Waste Isolation Pilot Plant (WIPP) Report for July 2024

**DNFSB Staff Activity.** The Board's WIPP cognizant engineer held weekly meetings to maintain awareness of mining and waste handling activities. On May 15, 2024, the Board transmitted a letter to Department of Energy (DOE) Secretary Granholm regarding the continuous air monitor system for the WIPP Safety Significant Confinement Ventilation System. DOE Carlsbad Field Office (CBFO) will brief the Board about this topic on September 9, 2024.

**Hoisting Capability Project.** There are three hoists at WIPP available to transport miners in and out of the underground: Air Intake Shaft Hoist; Salt Handling Shaft Hoist, and Waste Shaft Hoist. The Air Intake Shaft Hoist was out of service for seven months in 2023 due to a faulty electrical controller. The Salt Handling Shaft experienced a structural misalignment in June 2024 and will be out of service for several months later this year for the Salt Pocket Refurbishment Project. The Waste Hoist has repeatedly required unplanned maintenance throughout 2024, including one instance on June 20, 2024, in which the hoist stalled while transporting nuclear waste into the underground. Although Salado Isolation Mining Company, LLC (SIMCO) leaders intend to begin a Hoisting Capability Project that would potentially replace or add new hoists, this has not progressed past the conceptual planning stage. Since miners depend upon the availability of safe and reliable hoists to exit the underground during an emergency, the Board's staff will continue to monitor SIMCO's progress with proactively managing risk for this topic.

**Aging Effects in Underground East-140 Section.** When WIPP was constructed in the early 1980s, the original engineering design life for underground areas was 25 years. Maintaining the underground past its design life has required site personnel to address foreseeable ground control challenges with aging mining infrastructure. The East-140 tunnel of the mine has been the primary waste transportation route to all south panels, though site personnel have restricted East-140 access since June 2024 due to its excessive deformation and fragmentation in the tunnel roof. Site personnel installed a break line in June 2024 to stop an unplanned roof failure in the restricted area from propagating into the unrestricted areas. CBFO leaders confirmed this month that there are no anticipated impacts on waste handling capabilities if a collapse occurs.

**Recent Successes for Mine Rescue Team.** The WIPP Mine Rescue Team responded to a mock first aid event during a local competition in June 2024, winning first place for the category, and getting challenging practice for the national competition in August 2024. The WIPP Mine Rescue Team is separate from the WIPP Fire Department, assisting emergency responders in limited circumstances, such as fires, roof falls, or missing person events. During multiple recent medical events that occurred underground, WIPP Mine Rescue Team members who were part of nearby work crews quickly attended the patients. To leverage their advanced first aid training and often advantageous locations, SIMCO leaders are currently considering whether to revise the emergency response program to authorize a limited activation of WIPP Mine Rescue Team members to formally assist with underground first aid incidents.