

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 3, 2023

**TO:** Timothy J. Dwyer, Acting Technical Director  
**FROM:** Erin A. McCullough, Cognizant Engineer  
**SUBJECT:** Waste Isolation Pilot Plant (WIPP) Report for October 2023

**DNFSB Staff Activity.** The Board's WIPP cognizant engineer held weekly meetings to maintain awareness of mining and waste handling activities. A staff review team communicated concerns regarding the continuous air monitors for the Safety Significant Confinement Ventilation System with WIPP site personnel on October 10, 2023. During the week of October 16, 2023, four staff members observed the annual full-scale emergency exercise. While on site, the staff members also met with mining engineering subject experts to discuss potential solutions for ground conditions in older areas of the mine.

**WIPP Mine Rescue Team Wins National Accolades.** As the nation's only transuranic waste disposal site available to the defense nuclear enterprise, WIPP presents unique emergency response conditions in which rescuers must navigate nuclear hazards in a mining environment. The WIPP Mine Rescue Team is a volunteer emergency response organization with members from the mining, engineering, waste handling, radiation protection, and maintenance departments on site. At this year's Missouri Regional Mine Rescue Contest in late September, the WIPP Mine Rescue Team placed in all event categories, earning the First Place Out-of-State Team award. This accolade follows success at the Southern Regional Mine Rescue Contest in May, where the WIPP Mine Rescue Team earned first place in three of the four event categories. Mine Rescue Team members train monthly and regularly share their expertise externally.

**Annual Full-Scale Emergency Exercise at WIPP.** On October 18, 2023, the full-scale emergency exercise scenario featured a severe weather event and a wind microburst that damaged the roof of the Waste Handling Building, resulting in debris from the room impacting waste containers and leading to an unfiltered release. One worker hypothetically exposed to radiation became trapped under the roof debris while four other workers sustained simulated wind-related injuries. The Board's staff observed the exercise from the event scene in the Contact Handling Bay, the Incident Command Post, and the Emergency Operations Center. Performance during the exercise presented a clear programmatic improvement over previous years, even though some exercise objectives appear unmet. Notable weaknesses included confusion among several employees about whether to shelter-in-place and insufficient dispatch information for the incident scene commander to prioritize response resources and venues.

**Safety Pause at the Utility Shaft.** Although the Utility Shaft achieved a major project milestone of reaching its final depth of 2,275 feet this month, hoisting and rigging work at the shaft is suspended until the operational "safety pause" is released. This safety pause resulted from a hoisting mishap in which the rigging cable wire rubbed against a spool guide, causing the cable wire to break on a tugging device connected to a skid steer loader vehicle. In early October, a skid steer loader vehicle swung uncontrollably in another hoisting evolution and struck the shaft Galloway (a multi-level scaffolding and platform). No personnel injuries occurred in either event. The safety pause will remain in place until management approves a revised Hoisting and Rigging Plan.