

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 3, 2024

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

**DNFSB Staff Activity.** The Board's WIPP cognizant engineer held weekly meetings to maintain awareness of site activities. During the week of April 15, 2024, a Board's staff team visited WIPP to observe operations. A Board's staff team also interacted with the Department of Energy (DOE) Carlsbad Field Office and Salado Isolation Mining Contractors, LLC (SIMCO) to discuss safety risks associated with the Salt Handling Shaft structural condition, including those affecting the Salt Pocket.

**Safety Stand-Down for Surface and Underground Operations.** SIMCO personnel performed over six months of work without a recordable injury until early April 2024. Multiple incidents occurred within one week this month, including two recordable injuries, a fire in a mop bucket located outdoors near a welding facility, and a drop of the tail end of a hoist rope approximately 15 feet onto the facility floor while replacing it. SIMCO management responded by implementing a safety stand-down throughout the site, requiring all work crews at different times to attend facilitated discussions about how safety culture affects operational excellence. SIMCO management intended for this action to improve situational awareness of common safety hazards and drive worker-level accountability for assigned tasks. Through these discussions, SIMCO management identified safety cultural factors contributing to the incidents and plans to perform an internal review. The Board's staff will monitor progress with this effort to emphasize an organizational value for healthy safety culture.

**Contamination on TRUPACT-148 Shipping Container in Radiologically Clean Facility.** On March 1, 2024, personnel at the Engineering Products Divisions (EPD) discovered radioactive material after removing brackets supporting the honeycomb spacer at the bottom of the container for maintenance. SIMCO radiological control supervisors arrived at the EPD within three hours to survey the environment and potentially affected personnel, who were not in radiological personal protective equipment because the EPD is a radiologically clean facility. The surveys did not detect contamination on personnel. This is the second incident in which contamination was found within TRUPACT-148 (see WIPP Report for April 2022). DOE Order 458.1, *Radiation Protection of the Public and Environment*, sets a 1 mrem per year personal exposure dose constraint for residual radioactive material for DOE property cleared to enter the public. The Board's staff will continue reviewing WIPP procedures that implement this requirement, including container survey plans, which currently require radiological control technicians to sample portions of the surface area within the TRUPACT above the honeycomb spacer to certify that it is clean.

**Compensatory Measures for Loss of Surface Seismic Monitor.** SIMCO personnel took the surface seismic monitoring system out of service after it fell into disrepair (see WIPP Report for January 2024). The Board's staff reviewed the corresponding compensatory actions, including reliance on operator perception of an earthquake and data collection through the U.S. Geological Survey. SIMCO management created an issue notice to capture the Board's staff's feedback.