

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 6, 2023

TO: Timothy J. Dwyer, Acting Technical Director
FROM: Alexander Velazquez-Lozada, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for September 2023

DNFSB Staff Activity. The Board's WIPP cognizant engineer participated in regular conference calls to maintain awareness of site activities. Ms. E. McCullough assumed responsibilities as the WIPP cognizant engineer starting on October 1, 2023.

Conduct of Operations-Waste Handling in the Underground. As reported in the August 2023 WIPP Monthly Report, during waste emplacement at Panel 8, a Salado Isolation Mining Contractors, LLC (SIMCO) forklift operator inadvertently punctured a drum. According to the Event Learning Review Report, the operator found soft ground and used an alternative approach to emplace the drum. This approach coupled with poor forklift operator visibility and spotter attention contributed to the event. Waste Handling Technicians stopped emplacing waste and made proper notifications. The Facility Shift Manager entered the appropriate Limiting Condition for Operation associated with a non-compliant waste container. Operations personnel confirmed that the plastic liner inside the drum remained intact and completed immediate actions to put the drum in a safe configuration by patching the drum with adhesive tape. Radiological Controls Technicians (RCT) coordinated with the Central Monitoring Room to confirm that the Continuous Air Monitors (CAM) located at the waste face did not indicate elevated readings. RCTs determined that there was no contamination of personnel or radiological release from the punctured drum.

Compensatory measures include remediating the floor in Room 6 of Panel 8 to correct the soft ground conditions; conducting lessons learned briefings for operations personnel; reinforcing expectations related to spotting; and ensuring a supervisor assesses ground conditions during emplacement activities. The facility remains in the applicable LCO until the safety basis is revised to include the actual state of the punctured drum. Further, a SIMCO evaluation identified that the driver of the forklift tested positive for a controlled substance. All other personnel tests came back negative. Fitness for duty is required per the WIPP safety basis to ensure personnel are not impaired while performing tasks at the site. The Board's staff continue to monitor SIMCO corrective actions.

Underground Continuous Air Monitor Alarm. On September 29, 2023, SIMCO activated the WIPP Emergency Operations Center in response to CAM alarms in the underground, indicating potential airborne radiological contamination. Immediate response actions included suspending underground activities; directing all above-ground employees to stay indoors; obtaining full accountability of underground personnel; and directing an orderly egress of the mine. The radiological controls monitoring team was deployed to the underground to take readings and confirmed there was no radiological contamination. SIMCO determined this was likely a false alarm caused by electrical issues. The Board's staff is following up on this event.