

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 6, 2022

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Alexander Velazquez-Lozada, Cognizant Engineer  
**SUBJECT:** Waste Isolation Pilot Plant (WIPP) Report for April 2022

**DNFSB Staff Activity.** The Board's staff participated in regular conference calls to maintain cognizance of site activities. D. Montierth and A. Velazquez-Lozada provided onsite oversight the week of April 25<sup>th</sup>.

**Waste Handling Activities.** On April 9, 2022, while removing the drum assembly from a shipping container originated at Idaho National Laboratory (INL), Nuclear Waste Partnership, LLC (NWP), waste handlers noticed an unknown material on the surfaces of the drums and what appeared to be liquid inside the inner containment vessel. Radiological control technicians sampled the material and liquid and identified radioactive contamination. The waste handlers stopped work and notified the on-duty waste handling engineer. The engineer notified the Facility Shift Manager, who performed the necessary evaluation, cease all waste handling operations, and entered Limiting Condition for Operation (LCO) 3.7.1, Condition B. WIPP also activated the Emergency Operations Center (EOC) and notified the New Mexico Environmental Department (NMED). LCO 3.7.1, Condition B required site personnel to immediately place the waste container in safe configuration and to either place the waste in a compliant overpack container or develop a response plan within 10 days.

NWP selected the option to develop a response plan and divided it in two phases. The first phase addressed the interim controls required to maintain safe configuration of the suspected WIPP Waste Acceptance Criteria non-compliant drums. In the second phase, NWP plans to prescribe the controls and operational restrictions required to remediate the potential non-compliances of the drums and restore LCO compliance of the affected area in the Waste Handling Building. NWP completed the Implementation Verification Review of the first phase on Friday, April 15<sup>th</sup>, and resumed handling waste the same day. NWP will submit the second phase of the response plan to CBFO for approval within 30 days of implementation of first phase of the response plan.

**Conduct of Operations.** WIPP experienced several off normal events at the beginning of this reporting period causing NWP to perform a safety stand down on Wednesday April 6<sup>th</sup>. In addition to two collisions of vehicles at the surface, NWP reported an incident in which a dry chemical sensor at the fuel bay in the underground was physically impacted and damaged. This caused the sensor signaling the fire alarm panel to activate the automatic fire suppression system (AFSS) and activate the evacuation lights. Immediate actions taken by NWP included: the egress of the NWP personnel from the underground air circuit that was affected; the transfer of the remaining fuel to the surface at the fuel bay to the surface; and the placement of barriers and postings at the underground fuel bay. However, though NWP staff saw the evacuation lights, they did not all evacuate the mine as required by the procedures. As a result, NWP plans to take additional compensatory measures to brief personnel on what is expected during an evacuation response and to review training records and procedures. NWP is also evaluating the direct cause of the AFSS activation; plans to test evacuation lights; and complete a vertical clearance analysis for vehicles passing by the underground fuel station. The work-pause/safety stand down was lifted on the morning of Thursday April 7<sup>th</sup>.