

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 3, 2022

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

DNFSB Staff Activity. The Board's staff participated in regular conference calls to maintain cognizance of site activities.

Waste Handling Activities. As reported in the April 2022 Monthly Report, Nuclear Waste Partnership, LLC (NWP), placed a non-compliant waste container (TRUPAC-148) in safe configuration after opening it and noticing an unknown material. After reassessing the response plan and evaluating various alternatives, NWP proceeded with the necessary steps to close the lid of the shipping container and send it back to Idaho National Laboratory.

Ground Control. During this reporting period, NWP observed accelerated ground movement at the intersection of drifts east-140 and south-2180. A ventilation overcast is installed at this intersection, which directs airflow from panel 7 to the exhaust drift east-300. NWP stopped downloading and emplacing waste and secured the affected area. After the ground movement slowed to a safe level, NWP entered the area to install rock bolts to stabilize the ground. NWP resumed underground waste activities after verifying ground convergence rates remained stable.

Fire Hazard. As part of the abatement plan to reduce nitrogen-dioxide in the underground, NWP is gradually replacing diesel-operated vehicles with battery-operated vehicles. During this reporting period, NWP received three lithium-ion battery-operated haul trucks. However, NWP has not completed a fire hazard analysis involving these types of batteries. Meanwhile, NWP placed these vehicles in the parking lot outside the WIPP perimeter security fence and is planning to send them back to the manufacturer until the hazard analysis is completed.

Radiological Protection. During a training session a qualified Radiological Control Technician (RCT) technician and two trainees discovered fixed contamination on two source holders/containers. NWP staff determined that the sources from within the holders were leaking. The RCT notified an RCT-supervisor but did not notify the Facility Shift Manager (FSM) as required by the procedures. NWP is formulating actions to prevent recurrence, which will include implementing conduct of operations training, physical inspections of all radiological sources, and briefing its staff on best practices for handling sources.

Electrical Hazard. NWP reported a potential exposure to hazardous energy that occurred during an annual preventive maintenance activity on the control panel for the conveyance loading car located on the contact-handled side of the Waste Handling Building (WHB). While working on the control panel, NWP technical staff paused to perform another work package. However, when they returned to complete their work, the technical staff performed absence of energy verification and maintenance activities on another car on the remote-handled side of the WHB, rather than the conveyance loading car as required by the work control document. Upon discovery of the condition, the Operations Manager paused all surface electrical work and notified the FSM. NWP scheduled an Event Learning Review to further evaluate the implications of this occurrence.