

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 7, 2020

TO: Christopher J. Roscetti, Technical Director
FROM: Alexander Velazquez-Lozada, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for January 2020

DNFSB Staff Activity: R. Quirk provided routine onsite oversight.

Waste Management. On January 14, 2020, Nuclear Waste Partnership, LLC (NWP), was processing a waste shipment from the Idaho National Laboratory. When workers lifted it out of the shipping container, they noticed a small potential puncture (hole) in the side of the ten drum overpack (TDOP). Work was stopped and the Central Monitoring Room, Facility Safety Manager (FSM), and Facility Representative were notified. The FSM entered Limiting Condition for Operation (LCO) 3.7.1-Condition B, which requires action to disposition the potential puncture in the TDOP within 48 hours. NWP workers performed a radiological survey and did not detect contamination outside of the TDOP. The TDOP was then placed back into the shipping container. Personnel at WIPP were not able to address the potential puncture within the required time limit. The FSM subsequently entered LCO 3.7.1-Condition F, which requires preparation and implementation of an approved Response Plan (RP) within 10 days. The RP specifies the necessary actions to further evaluate the potential puncture and, if necessary, repair/restore the TDOP to WIPP Waste Acceptance Criteria (WAC) compliance, or prepare the package for transport back to the generator. The Carlsbad Field Office approved the RP on January 23, 2020, and NWP implemented the specified interim controls. The TDOP remained in a safe configuration until NWP further examined the TDOP and determined that the defect did not penetrate the container; rather, the defect was entirely, or almost entirely, limited to the powder coat external to the TDOP. On February 3, 2020, CBFO notified DNFSB that the TDOP was declared safe, no repairs were required, the FSM was exiting LCO 3.7.1-Condition F, and that NWP was planning to download and emplace the TDOP in the underground.

Maintenance. On January 7, 2020, the brakes on a box cart failed while it was being driven, resulting in an impact with a flatbed cart at an underground airlock. NWP personnel subsequently discovered that daily pre-operational checks had not been documented consistently for both carts. The personnel driving the carts were taken to health services and released back to work. Both carts were tagged out-of-service. In a subsequent Fact-Finding, NWP identified the following potential corrective actions: inspect all of the carts used by maintenance personnel, consider a deeper dive into the maintenance record on each cart, identify any aged carts that are not useful and take them out of service. Of note, the Board sent a letter to DOE on September 24, 2018, that identified issues with the maintenance and inspection of vehicles in the underground.

Ground Control. On January 11, 2020, two pieces of grout detached from the wall and fell into the underground control station area of the salt shaft. One piece, weighing approximately 3 to 5 pounds, landed next to the control station operator's feet. No injury resulted. All work was stopped, the area was placed in safe configuration and barricaded, and the WIPP Engineering Department evaluated the area. NWP plans to pull several metal access plates along the edge to further investigate the wall. The salt hoist is restored to service at this time.