

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 2, 2022

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

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

Waste Handling Activities. On August 2nd, Nuclear Waste Partnership, LLC (NWP), reported elevated counts on a smear from a TRUPACT shipment (TP-180) sent by Idaho National Laboratory (INL). During subsequent investigations, on August 9th, it was determined that the contaminated surface area was greater than six square feet, which exceeds the requirements of the Hazardous Waste Facility Permit to allow decontamination at the WIPP Site. The TP-180 is from the same waste stream as TP-148 from INL that, as reported in the April and May 2022 WIPP Monthly Reports, also had contamination issues. TP-180 was sent back to INL. INL management has temporarily suspended shipments involving the waste stream in this shipment pending completion of an evaluation of the situation.

On August 15th, a waste handling technician and waste handling engineer identified a standard waste box with a single external threaded filter vent missing. On August 18th, NWP declared a violation of a Technical Safety Requirement for failing to meet a Limiting Condition of Operation (LCO) for a potentially non-compliant container, upon discovery of the missing filter vent. As part the immediate actions, NWP suspended all waste handling activities and the Contact Handled Bay was also evacuated until a cause could be determined. The standard waste box with the missing filter was stabilized and there was no release of contamination detected.

Preventive Maintenance. On August 22nd, NWP reported that the Cognizant System Engineer for the Waste Hoist identified that the preventive maintenance used to satisfy one of the hoist surveillance requirements was marked Satisfactory (SAT) but a measurement was out of range. This surveillance verifies the brake pad thickness and the spring force as measured by the caliper piston travel distance. Further investigation showed that the final preventive maintenance signature as well as the LCO data sheet were also marked Satisfactory. The cognizant engineer requested confirmatory measurements to be conducted on the piston travel. The remeasured values were equivalent to the values recorded in the last four months and within the TSR band. After interviewing the technician that took the measurement, NWP personnel concluded that the initial recorded value that was out of range was an editorial error. However, remeasured values were taken outside the required period and for that reason NWP personnel declared a violation of a Technical Safety Requirement for failing to perform the surveillance within the required frequency. Upon discovery, NWP management suspended use of the Waste Hoist for downloading waste via a Timely Order until the surveillance can be performed. However, the Waste Hoist is still available for man trips as all safety systems on the hoist are operational and within regulatory requirements.