

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 8, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Alexander Velazquez-Lozada, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for September 2021

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

Conduct of Maintenance. Nuclear Waste Partnership, LLC (NWP), reported an event involving a bolter in which a substantial amount of hydraulic fluid spilt on the ground and the rib near the intersection of drifts East-140 and North-1050 of the mine. In investigating the event, NWP personnel discovered that technical problems with the bolter began as early as August 20th. On August 24th, NWP personnel stopped a leak in the bolter by replacing a fitting, but they used a fitting not rated for the pressure of the hydraulic line. NWP personnel did not document the leak or the repair and did not tag the bolter out of service. On August 28th, NWP personnel operated the bolter and noticed leakage again. NWP personnel stopped operating the bolter and notified the underground facility operator. By the time the operator arrived on the scene, approximately 90 to 100 gallons of hydraulic fluid had been spilled. The Facility Shift Manager and the Underground Maintenance Supervisor were notified. NWP personnel barricaded the area and mitigated the spill with absorbent. This event appears to be similar to issues with the maintenance of underground equipment documented in the letter the Board sent to the Department of Energy on September 24, 2018.

Positive Unreviewed Safety Question (USQ) Determination. As reported in the August 2021 Monthly Report, NWP identified a Potential Inadequacy in the Safety Analysis (PISA), related to a ventilation configuration in which, if a radiological release occurs in the Contact Handle (CH) Bay, unfiltered contaminated air could travel from the CH Bay to the underground. Based on new information revealed by a smoke test in the Waste Handling Building, the USQ was revised. The revised USQ more appropriately addressed and documented the inadequacy of the safety basis and identified fourteen new events at the Waste Handling Building (WHB). NWP suspended all operations in the CH Bay while an Evaluation of the Safety of the Situation (ESS) and Justification for Continued Operation (JCO) is being developed. The WHB is currently operating under a Timely Order, which allows only administrative activities in the east section of the CH Bay. The curtailment of operations significantly reduces the likelihood of a radiological release event until this ESS/JCO is approved and implemented.

Contractor Readiness Assessment (CRA) for 700 C Fan Restart. As reported in the August 2021 Monthly Report, an independent team conducted a CRA of NWP's preparations for the restart of the 700C Fan to operate during non-waste handling activities. In the final report, the CRA team concluded that thirteen of the fourteen objectives were met. The objective that was not met is related to Configuration Management. Specific discrepancies included: Continuous Air Monitors (CAM) are not categorized as Mode Compliance Equipment in the Engineering Change Notice, as required; Unfiltered Ventilation Mode is not listed in the General Plant Design Description as one of the operating modes; and the manual shutoff switch and the electronic stop switch for 700-C fan are not listed as safety significant components.