

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

April 7, 2023

**TO:** Christopher J. Roscetti, Technical Director  
**FROM:** Alexander Velazquez-Lozada, Cognizant Engineer  
**SUBJECT:** Waste Isolation Pilot Plant (WIPP) Report for March 2023

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

**Potential Inadequacy of the Safety Analysis (PISA) Determination.** As reported in the February 2023 WIPP Monthly Report, Salado Isolation Mining Contractors, LLC (SIMCO), personnel determined that a PISA existed because the current safety basis did not consider inner pipe components within pipe overpack containers (POC) and Criticality Control Overpacks (CCO) that might have non-sintered stainless-steel filters. As part of the Evaluation of the Safety of the Situation (ESS), SIMCO proposed changes to the safety bases to reduce the POC material at risk (MAR) from 1800 to 350 plutonium-239 equivalent curies (PE-Ci). The DOE Safety Basis Review Team (SBRT) concluded that the currently credited controls in the safety bases with the revised POC MAR limit are adequate and reliable. No new controls were required based on the re-evaluation of the deflagration event between two POCs or CCOs. The revised MAR limit of 350 PE-Ci for POCs will be considered an initial condition, which is protected by an existing Specific Administrative Control (SAC) in the WIPP Waste Acceptance Criteria. The SBRT reviewed the list of POCs already disposed in Panels 7 and 8 and noted that they did not exceed the new MAR limit. In addition, the manager of the Central Characterization Program (CCP) stated that the new MAR limit is reasonably bounding for waste that is not yet certified. During this reporting period SIMCO kept the suspect TRUPACT shipping containers with POCs or CCOs in the Parking Area Unit (PAU) except when venting was required. After venting, the containers were returned to the PAU as required by a Long-Term Timely Order. Carlsbad Field Office (CBFO) accepted the proposed change to the safety basis to reduce the POC MAR to 350 PE-Ci. By the end of this reporting period SIMCO completed the Implementation Verification Review for this safety basis change and the Long-Term Timely Order was cancelled.

**Technical Safety Requirement (TSR) Violation-Waste Hoist Brakes.** On March 28<sup>th</sup>, a SIMCO Cognizant Systems Engineer (COG) identified a violation of the TSR 3.8.1 Surveillance Requirement (SR), "VERIFICATION of the brake pad thickness" due to two caliper travel distances being out of specification. The COG identified a discrepancy on the Limiting Condition for Operation (LCO) 3.8.1 Waste Hoist Brakes, associated with the Preventive Maintenance (PM) work control document and the surveillance record for Waste Hoist Brakes. The SR was marked as satisfactory on the records, but the recorded measurement was out of the acceptable range. The on-duty Facility Shift Manager (FSM) did not identify the discrepancy and subsequently authorized placing the Waste Hoist in operation. The COG notified the FSM of the discrepancy. Upon notification of the discrepancy, the FSM determined that a TSR violation had occurred when the facility was placed in Waste Handling Mode without meeting an LCO. As part of the corrective actions the FSM paused work activities; conducted briefings to engineering and maintenance personnel to reinforce the expectations for validating the data on SRs and signature authorities, and maintenance was performed to bring the brakes back within specification. Subsequently, COG and FSM verified values to ensure satisfactory conditions.