

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

May 5, 2023

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

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

Conducts of Operation. On April 17th, Salado Isolation Mining Contractors, LLC (SIMCO), personnel brought two TRUPACT-shipping packages into the Waste Handling Building (WHB) for processing while the facility was in a Limiting Condition of Operation (LCO). Specifically, LCO 3.1.1-C had been put into effect in order to perform the weekly fire pump testing and annual hydrant water flow testing. While in effect, the LCO prohibits introducing new shipping packages into the WHB. This situation represented a Technical Safety Requirement (TSR) violation. SIMCO personnel identified the failure to recognize and communicate plant conditions prior to beginning work as a direct cause of this TSR violation. As an immediate action, SIMCO paused waste handling activities and restored the WHB Fire Suppression System to operable status. Among the compensatory actions, SIMCO evaluated Waste Handling Procedures to ensure adequate controls are in place to prohibit moving waste into the WHB with LCOs in effect; evaluated the adequacy of LCO training for waste handling personnel and supervisors; and scheduled a safety stand-down to implement corrective actions.

Safety Significant Confinement Ventilation System (SSCVS). SIMCO continues to verify corrective actions implemented by the subcontractor The Industrial Company (TIC) to address field issues in material control and work package documentation. On March 6th, SIMCO conducted a walkdown and observed safety significant (SS) material being installed on one of the HEPA Filter Housing assemblies without identifier numbers on the material itself and without being included in the corresponding work package. Further investigation revealed that TIC received the material and generated an inspection report but did not record it in the corresponding work package prior the installation. SIMCO personnel reviewed multiple work packages and identified numerous deficiencies in the material control and work control processes. After TIC held a quality stand-down on the SSCVS project on March 8th, SIMCO proposed the following corrective actions: (1) investigate all material associated with fan and HEPA Filter assemblies; (2) log all materials on the work package permanent material log; (3) create a workflow for this process with roles assigned; (4) segregate materials so that Balance of Plant and SS materials are not stored together; and (5) conduct training on the material control program as well as work package requirements regarding material logging and verification.

Potential Inadequacy of the Safety Analysis (PISA) Determination. As reported in the Board's WIPP Monthly Report for March 2023, SIMCO completed the Implementation Verification Review for the changes to the safety basis that did not consider inner pipe components within pipe overpack containers (POC) and Criticality Control Overpacks (CCO) that might have non-sintered stainless-steel filters. The Long-Term Timely Order prohibiting processing and emplacing the five TRUPACTs in question that resulted from that review has now been cancelled and the TRUPACTs have been processed and emplaced.