

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

September 1, 2023

**TO:** Timothy J. Dwyer, Acting Technical Director  
**FROM:** Alexander Velazquez-Lozada, Cognizant Engineer  
**SUBJECT:** Waste Isolation Pilot Plant (WIPP) Report for August 2023

**DNFSB Staff Activity.** During August 7-10, 2023, the Board's cognizant engineer conducted routine safety oversight activities on-site at WIPP. During August 22-24, 2023, the full Board, accompanied by members of the Board's staff, visited the site to walkdown the Underground Facilities, Waste Handling Building (WHB), Safety Significant Confinement Ventilation System (SSCVS) Project, and Utility Shaft Project. The Board Members also held discussions with personnel from the Carlsbad Field Office (CBFO) and Salado Isolation Mining Contractors, LLC (SIMCO) that covered the status of WIPP Operations, the National TRU [transuranic] Program (NTP), and capital assets projects. During August 28-31, 2023, Board's staff members E. McCullough and A. Velazquez Lozada visited the site to support turnover of cognizant engineer responsibilities.

**Conduct of Operations-Waste Handling in the Underground.** CBFO management reported that on August 30, 2023, during waste emplacement activities in the underground, SIMCO personnel inadvertently impacted a drum in Room 6 of Panel 8 while operating a forklift, causing damage to the drum. CBFO reported that the continuous air monitors did not detect a release of radiological material. SIMCO personnel took immediate corrective actions including temporarily placing the drum into a safe configuration and stopping all waste management activities pending further evaluation of the incident. The Board's staff is following-up on further corrective actions being implemented by SIMCO.

**Safety Significant Surface Ventilation System.** During this period, CBFO reported two unplanned limiting condition of operation entries that occurred due to inadvertent fan shutdowns in the WHB. These shutdowns impacted operation of the Battery Exhaust System (BES) and HEPA filtration for the TRUPACT-II Unloading Dock exhaust hoods during TRU waste handling activities. The WHB BES provides ventilation to divert hydrogen gases from the WHB Battery Charging Station. It appears that SIMCO did not perform a formal event investigation after the first unplanned fan shutdown and may not have followed prescribed reporting requirements. CBFO personnel are following-up on this event.

**Conduct of Operations-Fire Protection.** CBFO personnel reported that SIMCO failed to follow WIPP procedures and work package requirements while conducting a pressure test of the safety significant Water-Based Fire Suppression System. The pressure test work package required the test engineer to be present and witness the test. However, the test engineer was not present during the pressure test and for that reason could not sign-off on the test. This resulted in an operational pause in testing activities. SIMCO conducted an investigation and identified corrective actions to include re-training all test engineers and reviewing procedures and work-packages prior to the re-start of testing activities.