

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 7, 2018

TO: Christopher J. Roscetti, Technical Director
FROM: Alexander Velazquez-Lozada, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for November 2018

DNFSB Staff Activity: R. Quirk and A. Velazquez-Lozada provided routine oversight. Staff oversight during fiscal year 2019 averaged to 2 person-weeks/month.

Ground Control. On November 14, rocks fell in Room 6 in Panel 7 of the WIPP underground, according to observations by site workers. All underground work was stopped and personnel evacuated. No radiological release was detected. Operations resumed after WIPP's Mine Rescue Team completed an inspection. WIPP's engineers have been monitoring the convergence rates of Room 6 in Panel 7 and were expecting rocks to fall by the end of this year. Room 6 houses diesel equipment. This equipment was abandoned in Room 6 after NWP prohibited reentry approximately 2 years ago due to unsafe conditions. Transuranic waste had been emplaced at the entrances to Room 6 and at this moment it cannot be accessed.

Bolts installed for underground rock stabilization are currently failing at a higher rate than they are being replaced. The Department of Energy's Carlsbad Field Office (CBFO) is concerned that this could further deteriorate underground conditions.

Conduct of Operation. As previously mentioned in the June, July, and September monthly reports, the Board's staff has been discussing with CBFO the background, events, and corrective actions associated with Transuranic (TRU) Waste Processing Center (TWPC) shipments containing externally-contaminated waste drums. The Board's staff evaluated additional information provided by CBFO and NWP, and identified instances where records indicated that shipments exceeded the Radiological Work Permit (RWP) limit for external removable alpha contamination. On November 14, 2018, NWP formally reported an occurrence from May 17, 2018, when NWP processed a shipment for which the recorded counts on three swipes exceeded the WIPP RWP. NWP declared a Technical Safety Requirement (TSR) violation for not entering the corresponding limiting condition for operation (LCO) upon receiving the swipe data. NWP plans to perform a causal analysis and develop corrective actions.

Air Quality and Ventilation. NWP is evaluating the integration of additional fans into the existing Underground Ventilation System (UVS) as part of a compensatory measure to increase the underground air flow in advance of the Safety Significant Confinement Ventilation System (SSCVS) being completed. The SSCVS is expected to be completed by 2021.

NWP continues to have problems with fans of the Underground Ventilation System. NWP plans to replace the 860A fan coupling, as it continues to have vibration problems despite the fact that the motor was replaced.

Workers operating diesel equipment or near the equipment are now required to wear electronic air samplers as a corrective action intended to address Industrial Hygiene (IH) issues.