

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

June 1, 2018

TO: Steven A. Stokes, Technical Director
FROM: Christina T. Beaty, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for May 2018

DNFSB Staff Activity: L. Schleicher visited WIPP to gain familiarity with WIPP's seismic and geotechnical monitoring capabilities and ground control activities as part of the staff's WIPP Documented Safety Analysis, revision 6, review. R. Quirk was at WIPP for a week of routine oversight. Staff oversight during FY-2018 has averaged 2.1 person-weeks/month.

Work control and maintenance program issues. WIPP's progress in mining the next panel for waste emplacement slowed due to continuous miner issues. The continuous miner is WIPP's primary piece of mining equipment, but corrective actions to fix it were delayed because of work control and repair parts problems. Subsequent to the miner repair, the contractor identified additional issues with the miner and deduster that further delayed mining of panel 8. The deduster is not efficiently transferring salt dust from its filters to the disposal bag, resulting in salt buildup in the unit.

WIPP remains in a degraded, abnormal electrical line-up caused by the loss of the B bus, with all site loads powered by the A bus ([see April 2018 report](#)). The central uninterruptible power supply also remains out of service and the non-safety backup diesel generators have experienced reliability issues for many months. A single failure to the A bus will result in the loss of all site electrical power until a diesel generator is manually started and then loaded. Nuclear Waste Partnership, LLC (NWP), has determined that the failure that led to the loss of B bus does not require tracking in their primary corrective action system. The Board's staff is still pursuing the causes or extent of condition associated with this event.

NWP has struggled with a shortage of radiation control technicians (RCT) who are required to support many activities at WIPP. This resource shortage limited some priority tasks that WIPP had scheduled. The contractor is training 5 new RCTs and qualifying 10 others as senior RCTs.

Waste Shipments. WIPP personnel identified two transuranic waste transportation containers (TRUPACT-II) from Oak Ridge National Laboratory (ORNL) that included waste assemblies with external alpha contamination levels above WIPP's waste acceptance criteria. This has prevented WIPP from emplacing these waste assemblies. Personnel at ORNL had informed WIPP that they had detected the contamination but concluded that it was from radon progeny, and therefore was shippable to WIPP. WIPP personnel determined that the contamination was not from radon, and are developing a path forward. There are several other loaded TRUPACT-IIs from ORNL at WIPP with waste from the same waste stream that have not yet been unloaded.

Carlsbad Field Office senior management approved the corrective action plan (CAP) for a pre-start finding from the December 2016 Department of Energy operational readiness review (ORR) for resumption of waste emplacement at WIPP. The team member who wrote the finding has concurred with the CAP. The CAP has 5 open post-start remedial actions and 11 other open actions designed to prevent recurrence; all are scheduled for completion by October 31, 2019.