

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 1, 2019

TO: Christopher J. Roscetti, Technical Director
FROM: Alexander Velazquez-Lozada, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for October 2019

DNFSB Staff Activity: There were no staff visits to WIPP this month.

Underground Ventilation. Carlsbad Field Office (CBFO) approved the safety basis supplement to test the unfiltered operation of a 700 series fan and also to evaluate the long term operation of the fan. CBFO has identified the operation of the legacy 700 series fan as necessary to maintain underground air quality, to facilitate operations of diesel powered equipment in the underground, and to support ground control activities. For the test, some specific administrative controls were added to the safety basis, restricting diesel-powered vehicles from entering Panel 7; re-establishing a continuous air monitor station at the exhaust drift of Panel 7; and shutting down unfiltered ventilation upon detection of underground airborne radiological activity. For the test, Nuclear Waste Partnership (NWP) plans to manually shut down the 700 series fan upon detection of an underground radiological release. CBFO approved the test of the 700 series fan with the condition that NWP submit a Radiological Monitoring Plan prior to the test. NWP is evaluating potential radiological contamination, associated with the February 14, 2014 event, at the inner surface of the fan housing and in the exhaust duct as part of the preparations to test the 700 series fan. CBFO will separately authorize NWP to commence the test.

Conduct of Operations. NWP reported a violation of the Technical Safety Requirements (TSR) for failing to perform required fire watches for some areas affected by scheduled maintenance on the fire suppression system in the Waste Handling Building. A fire watch was initially established for the CH Bay Process Area. Later in the shift, the facility changed to Waste Handling Mode and the Waste Shaft Access Area and the Waste Hoist Tower became part of the affected area. However, a fire watch was not assigned to those two new affected areas. The Facility Shift Manager (FSM) established fire watches when it was recognized that one was needed in those areas. As part of the corrective actions, NWP implemented a process to better screen work packages involving TSR controls.

Maintenance. NWP personnel failed to report damage to a hazardous (high voltage) electrical cable in the underground and performed unauthorized and improper repairs. An NWP electrician identified the damage and improper repairs during a continuity check and visual inspection of the cable. The Central Monitoring Room was notified, the cable was tagged out, and barriers were put in place to prevent traffic in the area pending further investigation.

Safety Significant Controls. WIPP continues to have problems with the Safety Instrumented Alarm System (SIAS). On this occasion, a failure of an output card rendered the SIAS inoperable for almost four weeks. Without a functional SIAS the underground supplemental ventilation system cannot be operated. As a consequence, activities such as mining Panel 8 and downloading waste were impacted.