

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

February 5, 2021

TO: Christopher J. Roscetti, Technical Director
FROM: Alexander Velazquez-Lozada, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for January 2021

DNFSB Staff Activity. There were no Board's staff visits to WIPP this month. The staff participated in regular conference calls to maintain cognizance of site activities.

COVID-19 Response. WIPP continues to monitor staffing levels and meet the minimum requirements to continue operations with most of its staff teleworking. During January 2021, the rate of shipments increased from two per week in December 2020 to five per week. Nuclear Waste Partnership, LLC (NWP), increased from 4-days to 7-day/10 hour shifts on January 11, 2021, for mining work and ground control.

Underground Ventilation System-700C fan. As reported in the December 2020 Monthly Report, NWP planned to conduct the unfiltered 700C fan hot test in January 2021, after addressing findings from the Management Self-Assessment and Implementation Verification Review conducted in December 2020. Findings of particular interest to the Board related to work control documentation and training. The first and second (January 14 and 16, respectively) attempts to perform the 4-hour hot test were not completed. The first attempt was not completed due to problems with procedures, retraining needed prior to commencing the test, and electrical issues with portable air samplers. The second attempt incorporated lessons learned from the first attempt, but had to be halted when the fan failed to start due to a mechanical failure of a relay in the start permissive circuit. NWP completed troubleshooting and made the necessary repairs. NWP next performed a bump test independently of the hot test to verify the repair of the start permissive circuit relay and the proper direction of rotation of the 700C fan. The bump test was completed on Friday, January 22. Subsequently, on January 31, NWP completed the 4-hour hot test. Based on preliminary mechanical and radiological data, the hot test appears to have been completed according to plan. NWP will analyze the radiological data collected and will provide final results. After evaluating all the data, WIPP management plans to schedule a follow-up town hall with the public to discuss the findings and present their path forward to complete the next phase of testing.

Safety Significant Confinement Ventilation System (SSCVS): After removing forms from the Salt Reduction Building walls, NWP observed honeycombing and exposed rebar in the concrete. NWP is evaluating the extent of condition and drafting a non-compliance report. During the preliminary testing of an SSCVS exhaust fan, the fabricator identified air leaks that will require additional evaluation and repairs prior the full air leakage test.

Conduct of Operation. NWP reported minor damage to an Automatic Fire Fighting System bottle in a Haul Truck when the bottle made contact with a suspended energized 990VDC mine power cable. No personnel injuries occurred. NWP immediately secured the equipment and placed barriers in the area. An initial investigation indicates that a spring clip mechanism may have failed, allowing the cable to droop into the travel path.