

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 5, 2021

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

DNFSB Staff Activity. A. Velazquez-Lozada provided onsite oversight the week of October 25th.

Waste Handling. As reported in the September 2021 Monthly Report, Nuclear Waste Partnership, LLC (NWP), identified a Potential Inadequacy in the Safety Analysis (PISA) related to a ventilation configuration in the Contact Handled (CH) Bay. NWP suspended all operations in the CH Bay while an Evaluation of the Safety of the Situation (ESS) and Justification for Continued Operation (JCO) were developed. NWP completed the Implementation Verification Review for the ESS/JCO on October 14th. The IVR team identified two findings. One finding was related to documents that did not adequately incorporate changes made to the safety basis to address the PISA. The other finding was related to trained personnel who were not sufficiently knowledgeable of the controls discussed in the safety basis. NWP corrected both findings during the review and resumed waste handling, downloading, and emplacing activities on October 15th.

Underground Ventilation. In the evening on October 26th, NWP started the 40-hour test of the unfiltered 700C fan. When the two inlet dampers of the fan, which were supposed to open automatically, but did not open, NWP stopped the test and switched the underground ventilation system back to filtered mode. The next day, NWP found a salt build-up on the dampers that was preventing them from repositioning. This salt build-up had apparently formed since the last time the dampers were manipulated (on January 31st) for the 4-hour hot test of the 700C fan. NWP removed the salt build-up by cleaning the dampers in the morning on October 27th and restarted the 40-hour test that same afternoon. This time the two inlet dampers operated correctly. NWP planned to run the 700C fan approximately 7 hours per day until reaching 40 cumulative hours. While operating the 700C fan, in unfiltered mode, NWP established some specific restrictions. For example, NWP prohibited vehicles/equipment with liquid combustible capacity from entering an active disposal room, as well as waste handling activities in the underground. In addition, NWP required that all underground waste in an active disposal room be monitored via an operable radiological monitoring system consisting of three continuous air monitors communicating with the Central Monitoring Room. After completion of the 40-hour test, NWP plans to evaluate radiological surveys to determine, along with Carlsbad Field Office (CBFO), if the 700C fan can be safely operated full time, and to establish routine monitoring requirements for continuing 700C fan operation.

Emergency Preparedness. In the morning of October 26th, NWP completed their annual Emergency Exercise. The exercise simulated an underground electrical accident impacting a maintenance worker, an electrical fire, and a missing miner in the underground. Upon completion of the exercise, NWP collected information and critiques from the observers, evaluators, and participants, which will be used to evaluate the effectiveness of selected response organizations, personnel, and functions under the WIPP Emergency Management Plan. NWP is currently completing an After Action Report to submit to CBFO for approval.