

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 4, 2022

TO: Christopher J. Roscetti, Technical Director
FROM: Alexander Velazquez-Lozada, Cognizant Engineer
SUBJECT: Waste Isolation Pilot Plant (WIPP) Report for October 2022

DNFSB Staff Activity. The Board's staff participated in regular conference calls to maintain cognizance of site activities.

Automatic Fire Suppression Systems in Vehicles Used in the Underground. Nuclear Waste Partnership, LLC (NWP), identified a potential inadequacy of the safety analysis (PISA) and positive unreviewed safety question related to underground vehicles equipped with a specific brand of an automatic fire suppression system (AFSS). As a result, NWP issued a timely order preventing any underground vehicles equipped with the specific brand of AFSS from being operated. At issue is a surveillance requirement for the AFSS in the safety basis, which requires only that operators verify a particular green light is illuminated to prove AFSS operability. After further research by the Fire Protection Engineer and observation of field operating conditions, it was discovered that it is possible for the control panel of this specific brand of AFSS to be in a fault condition even when the green light is illuminated. NWP completed an Evaluation of the Safety of the Situation, which proposes interim controls. These controls include the need for a functional audible tone as an additional indication, as well as a semi-annual surveillance to verify functionality of the audible tone; and modifying the visual indicator check to specify that only the particular green light is illuminated (i.e., no other indicator lights are illuminated or audible tones are sounding). CBFO is currently evaluating the proposed path forward.

Continuous Air Monitors (CAM) Alarmed in Contact Handled (CH) Bay. Early on Monday, October 10th, the WIPP Emergency Operating Center was activated due to receipt of alarms from two of the four CAMs in the CH Bay of the Waste Handling Building (WHB). Technicians entered CH Bay using respirators and protective clothing and conducted several swipe surveys on a variety of surfaces. The EOC was deactivated on Monday afternoon after the technicians determined there was no external radiological release. Out of an abundance of caution, the technicians conducted surveys outside the CH Bay and at points around WIPP facilities and determined no radiological contamination was present. By design, the CH Bay operates under negative pressure such that all air leaving the building] is directed through high efficiency particulate air (HEPA) filter banks before it is exhausted to the environment. Filters from the CAMs on each of the four waste docks were removed and tested to determine if radiological contamination was present. The results of the tests indicated that there was no radiological contamination. NWP concluded that the alarms were triggered by radon. WIPP senior management is evaluating the implications of these types of nuisance alarms.

Waste Handling. As reported in the September 2022 Monthly Report, Carlsbad Field Office (CBFO) and New Mexico Environment Department (NMED) were discussing resumption of waste shipments from Idaho National Laboratory (INL) after shipments were suspended due to the discovery of contamination in two shipping containers loaded with a compacted waste stream from INL. After CBFO responded to an NMED letter regarding the shipments, providing the information requested by NMED, WIPP resumed receipt of shipments from INL.