

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

October 4, 2019

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

DNFSB Staff Activity: M.V. Helfrich, A.M. Hutain, Z.C. McCabe, R.G. Quirk, and A. Velazquez-Lozada provided onsite oversight during the month of September.

Emergency Preparedness: Nuclear Waste Partnership, LLC (NWP), conducted a full-scale emergency exercise at WIPP. The exercise scenario involved a security threat resulting in multiple injuries and an off-site radiological release due to impacts to multiple waste containers and the structure of the Waste Handling Building (WHB). The exercise tested WIPP's response to a mass casualty event and a security event simultaneously. While the Board's staff noted that the exercise scenario represented an improvement in terms of increased complexity and challenge, the staff observed that WIPP still has gaps in the areas of exercise conduct, internal and external communications; and command and control.

Waste Management: As reported in the August 2019 monthly report, NWP entered a Limiting Condition for Operation (LCO) due to a potential standard waste box (SWB) over-pressurization. NWP completed the actions in the associated Carlsbad Field Office-approved response plan, which allowed exiting the LCO action statement. NWP did not identify any further operational restrictions associated with this container. NWP subsequently emplaced the SWB in the underground.

Air Quality: NWP reported the discovery that technicians had incorrectly, non-conservatively, calibrated all nitrogen dioxide monitors worn by workers. Personnel are required to wear the monitors when near operating diesel-powered equipment in the underground. The monitors had been used for two weeks before NWP discovered the error. NWP tagged all of the affected monitors and removed from service. As a result, diesel equipment operations in the underground were suspended until the monitors were restored to service. No workers reported symptoms of overexposure during the time the mis-calibrated monitors were in use.

Conduct of Operation: NWP reported a Technical Safety Requirements violation caused when the Facility Shift Manager (FSM) exited an LCO before personnel completed two surveillance requirements for the electric fire pump. After discussions with the Nuclear Safety Manager, the FSM re-entered the LCO action statement for the WHB fire suppression system. NWP completed the surveillance requirements to verify the proper line-up of the fire protection system valves and to conduct a main drain test. The FSM then directed a proper exit from the LCO.

Safety Significant Controls: NWP entered an LCO when operators detected a failure of the alarm panel in the CMR that is used to monitor the differential pressure across Bulkhead 308. This alarm alerts operators when there is a problem with the underground ventilation system. NWP continues trouble shooting activities of this Safety Significant equipment and will maintain the LCO until repairs are made and the system is deemed operable.