

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

November 6, 2015

TO: Steven Stokes, Technical Director

FROM: Dermot Winters, WIPP Cognizant Engineer

SUBJECT: Waste Isolation Pilot Plant Activity Report for October 2015

**DNFSB Staff Activity:** A. Battaglia completed a WIPP orientation visit on October 12 and joined D. Bullen in observing a Readiness Review workshop October 13-14. Oversight has averaged 2.8 man-weeks of Board's staff oversight per month during the first 10 months of 2015.

**Readiness Review Workshop:** The workshop, in addition to defining the intended scope of the planned 2016 WIPP waste disposal restart Operational Readiness Reviews (ORRs), addressed the planned Readiness Assessments (RAs) for startup of the interim ventilation system (IVS). The ORRs will cover receipt, storage and emplacement of contact-handled waste while excluding remote-handled waste operations. During the workshop NWP recommitted to complete all corrective actions in response to the Accident Investigation Board reports prior to restart. NWP announced that the supplemental ventilation system (SVS) is not required for startup of waste disposal operations and could be problematic for emergency egress following an underground fire. The SVS system will be eliminated from the scope of the planned RAs.

**Ventilation System Changes.** Placement of the IVS equipment on its foundation pads is complete and tie in to the exhaust ductwork is expected to complete in early 2016. The staff reviewed drafts of the Safety Design Strategy and the Conceptual Safety Design Report in support of the selection of the preferred alternative for the Permanent Ventilation System and scheduled a November 5 telecon with DOE to discuss whether the reports contain sufficient information to provide a rigorous technical basis for selecting the preferred alternative.

**Surface Fire Water System.** There have been eleven fire water loop failures since 2008 (4 in lead-ins, 4 in loop piping, 1 PIV bonnet and 2 hydrants). NWP has signed a contract with an engineering firm to evaluate the condition of all fire water equipment, including pumps, tanks, buried piping and fire detection and control equipment. Recommendations to repair or replace the system are due in November, 30% conceptual design is planned to complete in late December and 90% design in July 2016. The staff is concerned about the timing of upgrade completion and the receipt of offsite waste for disposal.

**Consolidated Evaluation of the Safety of the Situation (ESS).** During October the staff conducted a review of the consolidated ESS and participated in a teleconference with the site. Radiological risk in the underground is dominated by the potential for a repeat thermal event. Much of the discussion focused on the credit assigned in the consolidated ESS to the interim closure bulkheads to protect facility workers from radiological exposure in the event of a repeat thermal event. The staff concluded that the controls established in the ESS to protect facility workers from a repeat thermal event may not be adequate. The staff suggested to DOE that establishing an additional control such as CAMs in the ESS would provide greater assurance that facility workers in the underground would be protected. A closeout telecon is scheduled for November 5.