

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 4, 2015

TO: Steven Stokes, Technical Director  
FROM: Dermot Winters, WIPP Cognizant Engineer  
SUBJECT: Waste Isolation Pilot Plant Activity Report for November 2015

**DNFSB Staff Activity:** R. Quirk was onsite performing site representative-like duties during November 16-20 and also observed portions of a workshop focused on the development and approval of the Safety Evaluation Report (SER) for Revision 5 of the Documented Safety Analysis (DSA) and Technical Safety Requirements (TSR). Oversight has averaged 2.6 man-weeks of Board's staff oversight per month during the first 11 months of 2015.

**Ventilation System Changes.** Ductwork installation work to tie the new Interim Ventilation System (IVS) into the exhaust air ventilation circuit is underway and with more than half of the ductwork supports being installed. Electrical transformers supporting the IVS also have been installed. Tie in to the existing exhaust ductwork remains on track to be completed in early 2016. The staff completed teleconferences with DOE on November 5<sup>th</sup> and 19<sup>th</sup> to assess whether the Safety Design Strategy and Conceptual Safety Design Reports supporting Critical Decision 1 (CD-1) for the planned permanent ventilation system, contained sufficient information to provide a rigorous technical basis for selecting the preferred alternative. The staff provided comments to DOE and plans a follow-up telecon prior to DOE issuing CD-1 to discuss how DOE resolved those comments. The staff is planning to issue a project letter on the state of the safety.

**Surface Fire Water System.** There have been multiple fire water loop failures since 2008. The WIPP contractor's consultant is developing corrective action recommendations. Although specific recommendations are not yet available, the current projection is that the system will be replaced rather than repaired. The staff is closely following these developments.

**Consolidated Evaluation of the Safety of the Situation (cESS).** Following an October staff review of the cESS, a November 5 closeout teleconference was conducted. The staff expressed concern to the CBFO that the controls established in the cESS to protect facility workers from a repeat thermal event may not be adequate. CBFO personnel were receptive to the staff concerns and committed to revisiting the control selection for facility worker protection in a near term revision of the cESS and to include an ESS termination date in the CBFO approval letter, after which authorization would need to be reaffirmed.

**Documented Safety Analysis (DSA).** WIPP contractor personnel are preparing a major revision (Revision 5) to the WIPP DSA to address safety basis deficiencies identified by the haul truck fire and radiological release events of February 2014. CBFO staff have provided a "high quality draft" of Revision 5 of the DSA for review by the Board's staff. A review agenda intended to assess the technical basis for key hazard analysis and control selection decisions presented in the draft Revision 5 DSA and to evaluate compliance of the draft with DOE-STD-3009-2014 has been submitted to the CBFO and a meeting for this interaction is planned for December 9-10 in Oak Ridge, TN.