

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

January 1, 2016

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

DNFSB Staff Activity: R. Quirk was onsite performing site-representative-like duties during December 14-18. Oversight has averaged 2.5 man-weeks of Board's staff oversight per month during 2015.

Ventilation System Changes. Ductwork installation work to tie the new Interim Ventilation System (IVS) into the exhaust air ventilation circuit continued in December. The staff completed a teleconference with DOE on December 4th and provided its view that the Safety Design Strategy and Conceptual Safety Design Reports generally support Critical Decision 1 (CD-1) for the planned permanent ventilation system preferred alternative. On December 7th, the staff followed up with a closeout meeting with DOE focusing on the capability of the preferred alternative design to bypass the HEPA filters for the waste disposal zone during normal operations. The staff is preparing a project letter for the Board's consideration on the state of safety at CD-1.

Documented Safety Analysis (DSA). CBFO staff provided a "high quality draft" of Revision 5 of the DSA for review by the staff. A review agenda to assess the technical basis for key hazard analysis and control selection decisions presented in the draft, and to evaluate its compliance with DOE-STD-3009-2014, *Preparation of Nonreactor Nuclear Facility Documented Safety Analysis*, was discussed during a meeting held December 9-10 in Oak Ridge, TN. During this meeting, DOE and NWP personnel agreed to take action to resolve staff concerns on issues related to (1) DSA assumptions on the maximum amount of Material at Risk that can be involved in postulated accidents; (2) Consequence and frequency estimates for a postulated seismically-induced fire; (3) Consequence analysis and control selection to protect facility workers from an exothermic reaction caused by remediated nitrate salt drums currently emplaced behind steel bulkheads in underground Panels 6 and 7; and (4) Assumptions for accident scenarios involving waste-bearing vehicles dropping down the waste shaft and initiating a fuel pool fire.