



ENVIRONMENTAL EVALUATION GROUP

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July 14, 2003



Mr. Steve Zappe
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303

Re: May 13, 2003 Permit Modification Requests for the Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Number NM4890139088-TSDF, regarding new disposal units.

Dear Mr. Zappe:

The U.S. Department of Energy, Carlsbad Field Office and Washington TRU Solutions, LLC (the Permittees) submitted the proposed Permit Modification Request (PMR) to the New Mexico Environment Department (NMED) on May 13, 2003. The PMR consisted of one Class 3 modification titled Construction and Use of Hazardous Waste Disposal Units.

The enclosed comments on the PMR reflect the independent review by the Environmental Evaluation Group staff. EEG intends to participate fully in the Class 3 PMR process.

If you have any questions about the enclosed EEG comments, please do not hesitate to contact me. Thank you.

Sincerely,

Matthew K. Silva
Director

MKS:SBW:js

Enclosure: Comments by the Environmental Evaluation Group on one Class 3 Permit Modification Request

cc w/encl: Inés Triay, DOE/CBFO
Steven Warren, WTS

030729



**Environmental Evaluation Group Comments on
the Construction and Use of Hazardous Waste Disposal Units**
(Class 3 Permit Modification Request submitted 13 May 2003)

Due to changes in the current expected rate of waste receipt at the WIPP, the DOE believes that it will be necessary to construct all ten of the Hazardous Waste Disposal Units (HWDU, also known as panels) and place waste in Panels 1-7 prior to the expiration of the current Hazardous Waste Facility Permit on 26 November 2009. The construction of Panels 9 and 10 is incidental to the construction and use of the other Panels since they are access drifts. EEG comments follow.

1. The reported changes in the rate of waste delivery are due to DOE plans to accelerate the disposal of TRU waste at the WIPP to allegedly reduce radiation risks at the generator sites. The actual implementation of these plans is dependent on annual budgets and other factors. The Permittees state,

While it is possible that these schedules and forecasts could change as time passes, the Permittees nonetheless believe these estimates are conservative. NMED approval of this PMR will allow the WIPP to support the important goal of reducing risks associated with surface-stored TRU waste.

Irrespective of the accuracy of DOE plans, the construction and use of new panels should be driven more by the economics of opening and maintaining a panel in preparation of waste receipt. The DOE currently adheres to the so-called "just in time mining" practice that discourages expenditures on salt openings that won't be used before extensive maintenance costs are incurred. The abandonment of rooms 4 – 6 in Panel 1 because of the expense necessary to maintain them ready for waste receipt is a good example of why the Permittees should not mine panels earlier than necessary.

2. Previously published planning, and the planning in this PMR, does not take into account what appears to be a more efficient method of repository utilization. Panel 9 will be the drifts between panels 3-4 on the east and panels 5-6 on the west (see Figure 1 of the PMR, p. A-3). It would appear that from an economic, a mine safety, and a maintenance point of view, filling and sealing panel 9 prior to filling panel 7 (and 8) would be a better practice, because the access drifts would no longer be needed, the drifts will be old enough to require extra maintenance, and the airflow through them would be superfluous. Also, according to the PMR (Figure 4 p. A-12) just prior to the end of the current HWFP current plans are for diminishment of shipments; the last panels will be filled over a much longer time period (most retrievably stored wastes are expected to have been shipped by the end of 2009, and the last panels will take much longer to fill). It appears that the four access drifts and four cross-drifts that will make up what is currently designated as panel 9 could easily, and more effectively, be utilized prior to panel 7.

3. The Permittees should also continue to pursue approval of a final closure method for filled Panels. The EEG concerns for panel closure¹ remain because the 7 October 2002, Class 3, PMR on the Closure Plan Amendment is unresolved. Since NMED allowed the Permittees to use a block explosion wall as a temporary closure for five years, panel closure concerns should not prevent the approval of the current PMR to mine and fill additional Panels.
4. The PMR assumes that "a maximum" of 18,000 m³ of CH-TRU waste will be placed in each of the future panels, and states that 10,496 m³ was put into Panel 1 (three of seven rooms were partially used). The draft modification specifically states (p. A-14) that there is no need to alter the expected 18,000 m³-per-panel amount. Figure 4 (p. A-12) of the PMR shows that approximately 85,000 m³ is scheduled to be put into the repository by the expiration of the HWFP on November 26, 2009. With five panels of 18,000 m³ and one of 10,496 m³ there would be >100,000 m³ available for waste, a significant reserve (>15%) for the waste that is planned to be received by the HWFP expiration date.

However, Section 9.1 of the draft PMR (p. A-16) indicates an expectation that CH-TRU will be all the way up to Room 1 of Panel 6 (last room of the panel) at the expiration of the permit. This is based on the scheduling in Attachment E, Panel Mining and Waste Emplacement Timeline (Note: Attachment D, Mining/Waste Emplacement Schedule Summary, April 2003 Update; contains commensurate data). This is an average of less than 14,500 m³ for each of panels 2-6. The information in these appendices simply refers to DOE databases, and do not show the methodology for achieving them. The shipping schedules used in Attachments D and E are based on significant assumptions as well; i.e., that TRUPACT-IIIs may be in use by 2007, that rail shipments will be instituted, and that characterization methods for unspecified oversized containers will be in place by 2007. The sensitivity of the waste receipt schedule to these assumptions is not provided.

The draft PMR states that inclusion of Panels 7 and 8 is necessary because the RH-TRU waste emplacement process will be a room ahead of CH-TRU emplacement, and thus would be in Room 7 of Panel 7 at the time the current HWFP expires. The WIPP RH-TRU program is still in preliminary stages, and schedules based on current planning may have a wide error margin. Thus, the necessity of using panel 7 appears to be very questionable at this time – and the volume estimates provided in the draft PMR do not make it clear that conservative time estimates have been used. It may be that the Permittees have overestimated the conservatism necessary. Also, it may be possible that the Permittees will redesign the layout of the repository prior to mining and utilizing Panels 5-10. NMED may want to consider whether or not sufficient evidence that disposal in Panel 7 will be necessary prior to the November 26, 2009 termination of the current HWFP is in this PMR.

¹ EEG commented on the PMR to NMED in a letter from Matthew K. Silva (EEG Director) to Steve Zappe (NMED) dated 16 December 2002.