



BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone (505) 476-6000 Fax (505) 476-6030
www.nmenv.state.nm.us



RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

April 24, 2008

**RE: SPECIFIC RESPONSE TO COMMENTS, CLASS 2 MODIFICATION REQUESTS
WIPP HAZARDOUS WASTE FACILITY PERMIT
EPA I.D. NUMBER NM4890139088**

Dear Commenter:

On March 25, 2008, the New Mexico Environment Department (NMED) took final administrative action on two Class 2 permit modification requests (PMRs) to the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit. The Department of Energy Carlsbad Field Office and Washington TRU Solutions LLC (the Permittees) submitted these PMRs to the Hazardous Waste Bureau in the following documents:

- Request for Class 2 Permit Modification (Electronic Operating Record), Letter Dated 11/20/07, Rec'd 11/26/07
- Request for Class 2 Permit Modification (Hydrogen/Methane Monitoring), Letter Dated 11/20/07, Rec'd 11/26/07

The Permittees requested the following:

1. Allow the WIPP Operating Record to be maintained in an unalterable, searchable electronic format;
2. Monitor each full panel for hydrogen and methane until final panel closure;
3. Establish action levels for hydrogen and methane;
4. Install substantial barriers and steel bulkheads to isolate a full panel for monitoring purposes;
5. Evaluate the monitoring data to determine an appropriate final closure system;
6. revise the location and frequency of volatile organic compound (VOC) monitoring in full panels until final panel closure;

April 24, 2008

Page 2

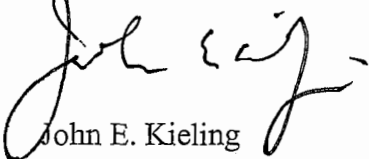
7. Inspect and certify the explosion-isolation walls in Panels 1 and 2 and inspect the bulkheads in Panels 3 through 7 until final panel closure; and
8. Extend the final closure in Panels 1 through 7 to 2016.

NMED approved these PMRs with changes for the reasons specified in the attached response to comments. These Class 2 PMRs were evaluated and processed in accordance with the requirements specified in 20.4.1.900 NMAC (incorporating 40 CFR §270.42(b)). They were subject to a sixty (60) day public comment period running from November 21, 2007 through January 21, 2008, during which NMED received written specific comments from a total of five individuals and organizations. You are receiving this mailing because you provided public comment on this modification.

Attachment 1 lists all commenters; Attachment 2 incorporates NMED's specific response to all comments; and Attachment 3 incorporates NMED's general responses to summarized comments. Further information on this administrative action may be found on the NMED WIPP Information Page at <<http://www.nmenv.state.nm.us/wipp/>>.

Thank you for your participation by submitting comments on these permit modification requests. Please contact Steve Zappe at (505) 476-6051 or via e-mail at <steve.zappe@state.nm.us> if you have further questions or need additional information.

Sincerely,



John E. Kieling
Manager
Permits Management Program

Attachments

cc: James Bearzi, HWB
Steve Zappe, HWB
David Moody, DOE/CBFO
Farok Sharif, Washington TRU Solutions LLC

Attachment 1
Commenter List

Comments Received by NMED on WIPP Permit Modifications
Modifications Submitted to NMED on:
November 20, 2007
Electronic Operating Record Class 2 PMR
Hydrogen/Methane Monitoring Class 2 PMR

	<u>Receipt Date</u>	<u>Author</u>	<u>Organization/Citizen</u>	<u># Pages</u>	
A	1	03-Dec-07	* Rebecca Perry-Piper	Citizen	6
B	2	31-Dec-07	* Matt Wunder	NM Dept of Game and Fish	3
C	3	18-Jan-08	* Marina Day	Citizen	1
D	4	22-Jan-08	* Don Hancock	SRIC	2
E	5	22-Jan-08	* Dave Moody/Farok Sharif	CBFO/WTS	4
		5 commenters		Total Pages =	12

* Denotes electronic comment submitted

Attachment 2
Specific Response to Comments

Comments Received By NMED on the WIPP Class 2 Permit Modification Request

Comment Number	Commenter/Affiliation	Topic Area	Commenter Number	Comment Summary	Response
1.1	Rebecca Perry-Piper, Citizen	Class 2 PMR - Hydrogen Methane Monitoring	A	Fact sheet, page 2, second bullet and page 1, fourth bullet, are conflicting. Extending the final closure dates for Panels 1 through 7 until the year 2016 may be inappropriate if data collection determines that final closure may need to come before 2016.	The fact sheet bullets paraphrase the proposed permit modification request (PMR) but do not capture the detail. As proposed in the PMR, if either hydrogen or methane measurements exceed Action Level 2 (20% of their Lower Explosive Limit) in two consecutive weekly samples, the Permittees would be required to install the explosion-isolation wall in the affected panel, independent of the 2016 date. NMED notes that installation of the explosion-isolation wall is the extent of partial closure currently implemented in Panels 1 and 2. NMED has previously allowed delay of final closure for Panels 1, 2, and 3, and retains the authority to require final closure of any panel at any time if current information indicates such a measure would be necessary to protect human health and the environment. Delay of closure for all remaining panels will allow collection of hydrogen and methane gas data, which could be used to help design an appropriate final panel closure system before the 2016 date.
1.2	Rebecca Perry-Piper, Citizen	Class 2 PMR - Hydrogen Methane Monitoring	A	Fact sheet, page 2, first bullet states, "Revise VOC monitoring locations in full panels and revise the frequency of VOC monitoring in full panels to monthly until final panel closure." Commenter believes that if changing the frequency extends the time that is currently in place, that this phrase should be deleted such that the criteria reads, "Revise VOC monitoring locations in full panels, until final panel closure."	The Permit currently requires room-based VOC monitoring to collect samples at locations throughout the panel every two weeks (and if action levels are reached, every week) while the panel is receiving waste. The language of the PMR proposes to reduce the sampling frequency after a panel is filled to once every month, and limiting the sample location to Room 1 (the room nearest to workers). NMED believes this modification is reasonable, and notes that repository VOC monitoring, which is used to determine whether releases from the repository meet human health-based regulatory limits, continues unchanged in this PMR.
1.3	Rebecca Perry-Piper, Citizen	Class 2 PMR - Hydrogen Methane Monitoring	A	Fact sheet, page 2, first bullet states, "Revise VOC monitoring locations in full panels and revise the frequency of VOC monitoring in full panels to monthly until final panel closure." Commenter believes that it should be changed to read, "Revise WIPP VOC monitoring locations, letting them remain at WIPP, until final closure."	The PMR does not propose to move VOC monitoring locations away from WIPP. NMED supports reducing the required VOC monitoring locations from all rooms in a panel receiving waste to only Room 1 (the room nearest workers) in filled panels.
1.4	Rebecca Perry-Piper, Citizen	Class 2 PMR - Hydrogen Methane Monitoring	A	If Washington TRU Solutions is not going to comply with the Permit, then DOE should align with the State of New Mexico in obtaining their compliance.	NMED expects the Permittees to comply with the Permit. NMED retains authority to enforce all provisions of the Permit.

Comments Received By NMED on the WIPP Class 2 Permit Modification Request

Comment Number	Commenter/ Affiliation	Topic Area	Commenter Number	Comment Summary	Response
2.1	Matt Wunder, NM Department of Game and Fish	Class 2 PMR - Hydrogen Methane Monitoring	B	The NM Department of Game and Fish does not anticipate significant impacts to wildlife or sensitive habitats from the subject permit modification. A list of sensitive, threatened and endangered species that occur in Eddy County was enclosed with their comment.	Comment noted. No response is required.
3.1	Marina Day, Citizen	Class 2 - All	C	The commentor expressed support for all Class 2 permit modifications.	Comment noted. No response is required.
4.1	Don Hancock, Southwest Research and Information Center (SRIC)	General	D	Commentor appreciates that the Permittees and NMED met with SRIC and other citizen groups to discuss panel closure, panel monitoring, and operating record PMRs. SRIC believes such activities are useful and supports such a "standard" practice in the future. SRIC does not oppose the two PMRs, but supports some changes as proposed below.	Comment noted. No response is required.
4.2	Don Hancock, Southwest Research and Information Center (SRIC)	Class 2 PMR - Hydrogen Methane Monitoring	D	In Module IV table of contents, and in the heading of IV.D.3, SRIC supports a change to: Panels 3 Through 7. Similarly, in Table I-1, Note, 6, the language should also be Panels 3 through 7 for the same reason and for consistency.	Proposed revisions have been noted and incorporated into the final permit language.
4.3	Don Hancock, Southwest Research and Information Center (SRIC)	Class 2 PMR - Hydrogen Methane Monitoring	D	In Module I.D.17, the definition of "Filled Panel", SRIC supports the definition being: <u>"Filled Panel" means a hazardous waste disposal unit which will no longer receive TRU waste.</u> The Permittees' proposed definition of "TRU mixed waste" is not sufficient because it does not include all waste that can be accepted at WIPP. The definition of TRU waste in Module I.D.6 covers all TRU waste that could be stored or disposed at WIPP, and there should be no confusion as to what constitutes a filled panel.	With very few exceptions (e.g., Permit Condition IV.B.2.b), NMED intentionally constructed the Permit to assert regulatory authority over TRU mixed waste, and in general does not use the broader term "TRU waste". However, the Permit is generally understood to apply to all TRU waste (mixed and non-mixed) stored and disposed at WIPP. For example, see Permit Conditions IV.I.1 (Panel Closure) and IV.A.1.b (Disposal locations and quantities) compared to Table IV.A.1 (Underground HWDUs). NMED has incorporated slightly different language in response to SRIC's comment, such that the definition now reads, <u>"Filled panel" means an Underground Hazardous Waste Disposal Unit specified in Permit Module IV that will no longer receive waste for emplacement.</u>

Comments Received By NMED on the WIPP Class 2 Permit Modification Request

Comment Number	Commenter/Affiliation	Topic Area	Commenter Number	Comment Summary	Response
4.4	Don Hancock, Southwest Research and Information Center (SRIC)	Class 2 PMR - Hydrogen Methane Monitoring	D	In Modules IV.F.5.b, IV.F.5.d and N1-8, there are "seven (7) calendar day" (in Module IV) or "7 (seven) calendar day" (in N1-8) notification requirements. SRIC supports "seven (7) calendar day" language in those modules. For consistency, SRIC also believes that other places in Modules IV and N, the notification requirement of "five (5) working days" should also be changed to "seven (7) calendar days."	Proposed revisions have been noted and incorporated into the final permit language.
4.5	Don Hancock, Southwest Research and Information Center (SRIC)	Class 2 PMR - Hydrogen Methane Monitoring	D	In Modules N-3c and N-3d(2), the Permittees propose to add the words "in open panels." SRIC objects to that language because there is no definition of "open panels" in the permit, which could be confusing. Moreover, SRIC does not believe the language is necessary. If NMED believes that there is a need for clarifying language in those two Modules, SRIC would propose "except in filled panels," since that definition is included in the permit.	Although "open panel" is not explicitly defined in the Permit, NMED notes that this term is already used in Attachment N (see Section N-3a(1)) and is understood to be a panel in which waste emplacement has commenced but is not yet completed. The language is necessary in Section N-3c because the sampling method for open panels uses the pressurized mode, whereas the method for filled panels uses the subatmospheric pressure grab sampling technique. Likewise, in Section N-3d(2), the open panel sampling schedule is every two weeks, whereas the filled panel frequency is monthly. NMED has edited and moved some of the language regarding filled panel sampling frequency from new Section N-6 to Section N-3d(2) for consistency and context.
4.6	Don Hancock, Southwest Research and Information Center (SRIC)	Class 2 PMR - Hydrogen Methane Monitoring	D	SRIC has a long-standing objection to some of the dates in Table I-1, since they are not the best, current estimates for panels to be operated and closed. We understand that all dates for panels 4 through 10 are estimates, but we remain concerned about having dates in the permit that are not the best estimates.	NMED is aware of SRIC's long-standing concerns related to the date estimates in Table I-1. NMED believes it is unnecessary to modify these estimates at this time.
5.1	Moody/Sharif, CBFO/WTS	Class 2 PMR - Hydrogen Methane Monitoring	E	During the December 14, 2007, public information meeting in Santa Fe, it was suggested that a condition which indicates that the Permittees will notify NMED of the results of the hydrogen and methane monitoring program on a semi-annual basis be added to the previously submitted revised Permit language. The Permittees concur with this request and suggest specific changes.	Proposed revisions have been noted and incorporated into the final permit language with minor edits.

Attachment 3
General Response to Comments

**NMED GENERAL RESPONSE TO COMMENTS ON CLASS 2 PERMIT MODIFICATIONS TO WIPP
HAZARDOUS WASTE FACILITY PERMIT (WIPP PERMIT)
SUBMITTED NOVEMBER 26, 2007**

Item 1. Allow for Unalterable Electronic Facility Operating Record

Background: The permit modification request (PMR) proposed to allow the WIPP Operating Record to be maintained in an unalterable electronic format. The hard copies of the Operating Record, which have been converted into an electronic format, would be maintained at the WIPP Records Archive facility. Paper copies of any electronic file would be made available to NMED upon request.

Comments: NMED received no specific comments regarding this item.

Response: NMED approved the modification without changes.

Item 2. Monitor for Hydrogen and Methane in Filled Panels

Background: The PMR proposed to allow the Permittees to monitor for hydrogen and methane gases in filled waste disposal panels, until such time that the panel is permanently closed. Although these gases are not directly regulated as hazardous constituents by NMED, the collection and evaluation of data associated with the buildup of potentially explosive gases could be useful in determining whether the currently approved panel closure system should be modified in a future PMR. Below is a summary of the proposed changes:

- Beginning with Panel 3, add a substantial barrier and a steel bulkhead in the intake and exhaust drifts of each full panel as part of the monitoring program.
- Monitor each full panel for hydrogen and methane gas until final panel closure.
- Establish action levels for hydrogen and methane gas that would trigger various activities that may include the installation of the explosion-isolation wall component of the existing panel closure system.
- Collect data to be used in determining a final closure for each panel.
- Initiate an inspection schedule and inspection criteria for the explosion-isolation walls currently installed in Panels 1 and 2, as well as the bulkheads in Panels 3 through 7, until final panel closure.
- Revise volatile organic compound (VOC) monitoring locations in full panels and revise the frequency of VOC monitoring in full panels to monthly until final panel closure.
- Extend the final closure dates for Panels 1 through 7 until the year 2016.

Comments: The Permittees concurred with a suggestion offered at one of the public information meetings that a condition be added to the previously submitted PMR, directing them to report the results of the hydrogen and methane monitoring program to NMED on a semi-annual basis. One commenter raised several concerns based upon review of language provided in the Permittees' fact sheet, dealing with delaying the date of final closure for any panel, reducing the frequency of VOC monitoring of full panels, and revising the VOC monitoring locations in full panels. Another commenter proposed language clarifying what constituted a "filled panel," and argued against also using the term "open panel." This commenter also recommended using the latest, best estimates for closure dates of panels specified in a table in Attachment I, Closure Plan, and proposed several other minor editorial comments.

Response: In response to public comment, NMED incorporated the Permittees' suggested language change regarding reporting of results, with minor edits to make it consistent with similar language elsewhere in the Permit.

NMED noted to the first commenter that the Permittees' fact sheet paraphrased but didn't necessarily capture the detailed language of the actual PMR, and thus some comments didn't reflect the proposed language changes. NMED made it clear that panels could be closed before the 2016 date if monitoring results triggered the requirement to install an explosion-isolation wall before that date. NMED supported the reduction of frequency of VOC monitoring in full panels, as well as limiting the monitoring location to Room 1 (the disposal room nearest to workers), noting that the repository VOC monitoring program would remain unchanged by this PMR. It is the repository VOC monitoring program that identifies any releases to the public that might exceed human health-based regulatory limits.

NMED incorporated slightly different language than proposed by the other commenter in the definition of "filled panel" to achieve the same goal. The PMR had proposed defining a filled panel as one that would "no longer receive TRU mixed waste," implying to the commenter that non-mixed TRU waste (not regulated by NMED) might still be emplaced in a panel considered "filled." Instead of incorporating the definition proposed by the commenter that a filled panel is one that would "no longer receive TRU waste" (a broader scope encompassing all waste), the final definition by NMED accomplished the same goal by defining a filled panel as one that would "no longer receive waste for emplacement." Regarding the comment on the use of the term "open panel," NMED noted that although not explicitly defined, this term was already used elsewhere in the Permit and is understood to be a panel in which waste emplacement has commenced but is not yet completed. NMED identified several situations in the Permit where it is important to distinguish that a panel is actively receiving waste, and chose to retain the term.

Acknowledging this commenter's long-standing concern related to the estimates of panel closure dates in the Closure Plan, NMED believes it was unnecessary to modify these estimates at this time.

NMED made additional editorial changes to some of the language proposed in the PMR, primarily to clarify the intent or to make the Permit more enforceable. For example, it was not clear in the PMR if hydrogen and methane monitoring (and therefore reporting requirements) began after the first room in a panel was filled or only after the entire panel was filled, so NMED included appropriate language in various locations to clarify that monitoring would begin only after a panel was full and the substantial barrier had been installed. Likewise, NMED also clarified that at least one compound (but not both hydrogen and methane) has to exceed the action level before remedial action must be taken, and clearly identified that disposal room-based VOC monitoring would continue in a filled panel unless the explosion-isolation wall was installed in that panel.