

SUSANA MARTINEZ Governor

JOHN A. SANCHEZ 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



DAVE MARTIN Secretary

RAJ SOLOMON, P.E. Deputy Secretary

April 18, 2011

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

Dear Commenter:

On April 15, 2011, the New Mexico Environment Department (**NMED**) took final administrative action on a Class 2 permit modification request (**PMR**) 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 this PMR to the Hazardous Waste Bureau on January 11, 2011, seeking to add the TRUPACT-III as a shipping package and the Standard Large Box 2 (**SLB2**) as a storage and disposal container, to add Room 108 and Airlock 107 as part of the Contact-Handled Bay in the Waste Handling Building Storage Unit, and to add equipment to the facility to allow for the handling of the TRUPACT-III and SLB2.

NMED approved this PMR with changes for the reasons specified in the attached response to comments. This Class 2 PMR was evaluated and processed in accordance with the requirements specified in 20.4.1.900 NMAC (incorporating 40 CFR §270.42(b)). It was subject to a 60-day public comment period running from January 17, 2011 through March 17, 2011, during which NMED received written specific comments from a total of four individuals and organizations. You are receiving this mailing because you provided public comment on this modification. The enclosed attachment incorporates NMED's specific response to all 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

Attachment

cc: James Bearzi, HWB

Steve Zappe, HWB

Edward Ziemianski, DOE/CBFO

Farok Sharif, Washington TRU Solutions LLC

Comment Number	Topic Area	Comment Summary	Response	Δ
	Class 2 PMR - TRUPACT-III General Support	I fully support all the proposed WIPP permit modifications to allow receipt and handling of the TRUPACT III transportation cask and the Standard Large Box 2 storage and disposal container and the disposal of it in the WIPP repository. The proposed storage and disposal container is a more efficient means of shipping and disposing of items that cannot be placed in a standard waste box or drum without much more handling and size reduction. This will provide for a safer worker environment and less radioactive exposure to the workers that package the TRU waste. The Permit Modification Request should be approved.	Comment noted. No response is required.	No
2	Class 2 PMR - TRUPACT-III General Support	The Citizens' Advisory Panel (CAP) of the Oak Ridge Reservation Local Oversight Committee, Inc. (LOC) provides the following comments on the subject proposed Class 2 permit modification for WIPP. These comments have not been reviewed or endorsed by the LOC Board and should be attributed to the CAP only. The CAP supports the four modifications proposed for the WIPP Hazardous Waste Facility Permit. As the transuranic (TRU) waste streams from the DOE complex are retrieved and processed, many are found to be atypical in their physical characteristics. In some cases, it may be much safer for site workers to dispose of them without significant additional manipulation, including size reduction, assuming that they otherwise meet WIPP's Waste Acceptance Criteria. This means that new shipping packages and disposal containers need to be approved. In cases where these are large or unwieldy, new equipment and storage areas may also be required.	Comment noted. No response is required.	No
3	Class 2 PMR - TRUPACT-III	The Oak Ridge Reservation has the largest inventory by curies of the remote-handled (RH) TRU waste in the DOE complex that is scheduled to be disposed of at WIPP. The site is currently attempting to determine how to best remediate the Molten Salt Reactor Experiment, which contains RH TRU fuel salts. If modifications to the WIPP permit are possible, this gives additional options to minimize exposure to our site workers. We hope that the New Mexico Environment Department will be flexible in approving such modifications that will enable more complete and safer disposal of some of DOE's most dangerous wastes.	This comment regarding the future disposition of RH TRU fuel salts is not relevant to the PMR subject to this administrative action. No response is required.	No

Comment Number	Topic Area	Comment Summary	Response	Δ
	Class 2 PMR - TRUPACT-III	Item 1 below is a clarification only and does not result in any changes to the Permit. A red-line/strikeout is included for items 2 through 6. The red-line/strikeout for items 2 through 5 replaces the red-line/strikeout for the respective sections submitted with the Permit Modification Request (PMR) on January 10, 2011. Locations where changes are made to the red-line/strikeout from the January 10th submittal are highlighted in yellow. Item 6 includes a red-line/strikeout that was not included in the January 10, 2011, submittal.	Comment noted. No response is required.	No
		1. The Permittees wish to clarify the aisle spacing between pallet stands in the CH-Bay. The aisle space between pallet stands is 44 inches as shown in the attached item 1. Spacing between facility pallets when placed on pallet stands will be at least 44 inches and will therefore, be consistent with the aisle space requirements for facility pallets in the Permit Parts 3.1.1.8 and A1-1c(1). This spacing and the spacing between the base of the Pallet stands is sufficient to allow unobstructed movement of emergency equipment per the Permit Sections A1-1c(1), D-1e(1), Part 2.10.1.	Comment noted. No response is required.	
	Class 2 PMR - TRUPACT-III	 2. The following are comments on Table E-1: a. Add a row for inspection of the Conveyance Loading Car to Table E-1. Add Procedure WP 05-WH1406 and the relevant inspection criteria to this row in Table E-1 for inspections of the Conveyance Loading Car. b. Delete procedure WP 05-WH1205 from the red-line/strikeout of the PMR from the Facility Transfer Vehicle inspection row in Table E-1. This procedure will apply only to the inspection of the Yard Transfer Vehicle and is included in the Table in the Yard Transfer Vehicle row. c. The inspections of the Bolting Robot, the Yard Transfer Vehicle, the Payload Transfer Station, and the Bolting Station will be conducted by List 8 (Waste Handling) and not List 1 (Underground Operations) as shown in the original PMR submittal. 		Yes
6	Class 2 PMR - TRUPACT-III	3. Replace Figure A1-36 with the revised figure which depicts the Yard Transfer Vehicle.	Change incorporated. However, Figure A1-36 depicts the Payload Transfer Station, and only incidentally depicts a transfer vehicle.	Yes
7	Class 2 PMR - TRUPACT-III	4. Change "the third party contractor" to "a third party contractor" in Section A1-1c(1), subsections "TRUPACT-II and HalfPACT Management" and "TRUPACT-III Management."	Change incorporated.	Yes

Comment Number	Topic Area	Comment Summary	Response	Δ
	Class 2 PMR - TRUPACT-III	5. Editorial comment to correct Table A2-1 HalfPACT entry to read "10,500 lbs" rather than "10,5000 lbs."	Change incorporated.	Yes
	Class 2 PMR - TRUPACT-III	Revise the introduction in Attachment H-1 to include "or standard large box 2s (SLB2s)."	Change incorporated.	Yes
10	Class 2 PMR - TRUPACT-III	Southwest Research and Information Center (SRIC) provides the following comments on the Class 2 permit modification request that was submitted by the Permittees on January 10, 2011, according to their public notice. SRIC appreciates that the Permittees provided a draft of the proposed request and that representatives of the Permittees as	Comment noted. No response is required.	No
		well as NMED met with SRIC and other citizen group representatives on December 15, 2010. SRIC continues to believe that such pre-submittal meetings are useful and supports continuing that "standard" practice in the future. SRIC also notes that there were some changes made in the modification request after the pre-submittal meeting.		
11	Class 2 PMR - TRUPACT-III	However, at that December 15, 2010 pre-submittal meeting, SRIC specifically stated that reference documents for TRUPACT-III and SLB2 must be made available by no later than the submission of the permit modification request or we would deem the request inadequate to meet the legal and regulatory requirements. Nevertheless, the request submission did not include essential documents to support the modification request.	See response to comment 13 below regarding the statement that essential documents supporting the modification request were not included.	No
	Class 2 PMR - TRUPACT-III NMED Must Deny Request	1. NMED must deny the modification request. Pursuant to 20.NMAC 4.1.900 (incorporating 40 CFR 270.42(b)(7)), NMED may deny the class 2 modification request for any of three reasons. SRIC believes that denial is required because the request is deficient under each of the three criteria; - the request is not complete, - the request does not meet the requirements of the Resource Conservation and Recovery Act (RCRA) and the Hazardous Waste Act (HWA), - and the request does not demonstrate that the changes	The commenter sufficiently summarizes the three reasons provided in 20.4.1.900 NMAC (incorporating 40 CFR §270.42(b)(7)).	No
		requested will protect human health and the environment.		

Comment Number	Topic Area	Comment Summary	Response	Δ
13	Class 2 PMR - TRUPACT-III Not Complete	A. The request is not complete. Despite the discussion at the pre-submittal meeting, the request does not include required supporting documentation Neither NMED nor the public can evaluate the adequacy of the proposed modification request as it relates to the TRAMPAC requirements and whether those requirements comply with the permit.	The commenter identified specific documents that were not included in the PMR, including the complete TRUPACT-III TRAMPAC. This is a document governed by NRC regulations as part of the certification for TRUPACT-III and is subject to NRC review and approval. The Permittees' compliance with the TRUPACT-III certificate of compliance (COC) is subject to the explicit conditions of the COC as imposed and enforced by NRC, not NMED. The extent to which tables in the	No
		Furthermore, other essential documentation has not been made available in any form, including the TRUPACT-III Safety Analysis Report nor any documentation about the Standard Large Box 2, including the TRUPACT-III Standard Large Box 2 Handling and Operation Manual WP 08-PT.05, Rev. 3 As one example of missing documentation, basic reference information about the internal dimensions of the SLB2, used in the calculation of Drum Age Criteria (DAC) values, is not provided. Thus, the necessary supporting documentation for the request is	TRAMPAC might identify specific chemicals and materials allowed in TRUPACT-III, whatever they are, is clearly subject to the limitations of chemicals and materials imposed by the TSDF-WAC in the Permit. NMED does not require submittal of standard operating procedures, such as the example cited, as part of permit modification requests, as these are reviewed during site inspections. The internal dimensions of the SLB2 were provided in both the DAC paper (Section 2.2) and TRUPACT-III TRAMPAC Appendix 8.1.5 (Section 8.1.5.2). NMED has determined the request is complete, and that sufficient	
		not available and the request is incomplete. Further, the request is not complete in satisfying the regulatory requirements for a permit modification.	supporting documentation was included in the PMR to verify relevant information, such as filter vent properties, authorized payload information (type, dimensions, weights), and DAC calculations.	
14	Class 2 PMR - TRUPACT-III Does Not Meet Requirements	B. The request does not meet the requirements of the HWA and RCRA. The modification request includes numerous changes to the permit in how contact-handled (CH) waste is packaged (SLB2), transferred from the parking area unit, opened, removed from the shipping container, examined for contamination, placed on the facility pallet, and emplaced underground. In addition to different procedures, the request includes several pieces of new equipment. Some of the equipment and some of the processes are not even described in the modification request, as is required by the HWA and RCRA regulations. Five new pieces of equipment and structures are proposed to be	The PMR included changes to how CH waste is received, managed, and disposed. Some changes modified existing language describing the TRUPACT-II and HalfPACT process, while other changes necessitated new language. See response to comments 15 through 19.	No
		added to Table E-1 – Inspection Schedule/Procedures (page B-35 of the request). Such information is required by HWA and RCRA regulations (20.4.1.500 NMAC (incorporating 40 CFR §§264.15, 264.174, and 264.602)).		

Comment	Topic Area	Comment Summary	Response	Δ
	Class 2 PMR - TRUPACT-III Does Not Meet Requirements (Continued)	where the TRUPACT-III is first taken in Room 108. An area of the "Bolting Station" is also shown in proposed Figures A4-3a and A4-	Numerous pieces of waste handling equipment identified in the Permit do not have figures, such as the overhead bridge cranes and adjustable center-of-gravity lift fixtures. Likewise, the TRUDOCK is only identified in plan view in figures in the current Permit. Thus, the assertion that each piece of equipment requires a figure is incorrect. Likewise, there is no requirement in RCRA that dimensions, construction materials, and a description of purpose for every piece of equipment must be provided. In response to this comment, NMED has added language identifying the bolting robot and monorail hoist in Permit Attachment A1, Section A1-1c(1) under TRUPACT-III Management. However, NMED did not include additional prescriptive language regarding the specific functionality of those items nor the vent hood, because these would have unnecessarily hampered the Permittees' operational flexibility to manage their operations based on sound science and common sense. Also, Figure A4-3b depicting the equipment layout in Room 108 has been added to Permit Attachment A1 as new Figure A1-1b.	Yes

Comment	Topic Area	Comment Summary	Response	Δ
	Class 2 PMR - TRUPACT-III Does Not Meet Requirements (Continued)	Bolting Robot, Bolting Station, and Monorail Hoist - are apparently not subject to the logbook, contrary to the requirements of the permit for other CH waste handling equipment. Such inconsistent procedures do not comply with RCRA and the HWA. Several of the new procedures are not adequately described to prevent hazards. Permit Attachment A1 describes the equipment and procedures for CH waste handling. The specified major components are Type B Packaging; Unloading Docks, Forklifts, Cranes and Adjustable Center-of-Gravity Lift Features; Facility or Containment Pallets; and Facility Transfer Vehicle. The Bolting Robot, Bolting Station, and Monorail Hoist are not described in the Permit, nor in the modification request. There are no specified procedures for use of those three pieces of equipment, contrary to the requirements of HWA and RCRA.	Permit Attachment E (Inspection Schedule, Process, and Forms) states in Section E-1, Inspection Schedule, "Waste handling equipment and area inspections are typically controlled through established procedures and the results are recorded in logbooks or on data sheets." Although it may not be clear in the new Permit language whether results for new equipment are recorded in logbooks or data sheets, there is no change in the requirement to comply with Permit Section 2.7.2 and 20.4.1.500 NMAC (incorporating 40 CFR §267.15(d)) to record inspections in an inspection log or summary, and to keep these records in the operating record as required by Permit Section 2.7.5 and 20.4.1.500 NMAC (incorporating 40 CFR §264.73(b)(5)). NMED verifies compliance with inspection and recordkeeping requirements during periodic inspections of the facility It is unclear what the commenter means by "new procedures are not adequately described to prevent hazards." The sections in Permit Attachment A1 describing the specified major components cited by the commenter in general do not described procedures to prevent hazards. However, most if not all waste handling equipment are governed by technical standard operating procedures written and maintained by the Permittees that are outside of the Permit. NMED periodically receives a list of all such procedures and has full authority to review any relevant procedure for compliance and consistency with Permit requirements, including specific steps taken to prevent hazards. No changes have been made in response to these comments.	No

Comment Number	Topic Area	Comment Summary	Response	Δ
17	Class 2 PMR - TRUPACT-III Does Not Meet Requirements (Continued)	headspace gases at their source. It also prevents potential personnel exposure and facility contamination due to the spread of radiologically contaminated airborne dust particles and minimizes personnel exposure to VOCs." The modification request states that the bolting station has a vent hood. at pp. 5-6. However, such a requirement is not specified in the actual proposed permit language. In addition, the vent hood system apparently is not included as part of the Payload Transfer Station. There is substantial handling of the SLB2 at that location, including lifting and lowering, thus releases could occur without	In practice, the Vent Hood System (VHS) at the TRUDOCKs remains in place until there is a determination that radiological contamination swipes collected under the inner containment vessel (ICV) lid of the TRUPACT-II or HalfPACT are below acceptable limits, after which it is removed. Thus, during the actual unloading of the waste containers from the shipping container, the vent hood system is not used. The vent hood at the bolting station for TRUPACT-III is necessary only until there is a determination that radiological swipes collected from inside the TRUPACT-III are below acceptable limits. By analogy to the TRUDOCK after the ICV lid is removed, there is no need for the vent hood system once the cover lid has been removed at the bolting station and the TRUPACT-III has been moved to the payload transfer station The "substantial handling of the SLB2 at that location" is analogous to the removal of the payload at the TRUDOCK, which is performed without use of the vent hood system. NMED considers the risks associated with handling the SLB2, including dealing with container integrity issues, similar to handling any of the other approved CH waste containers in the CH Bay. Finally, the description of the VHS in Permit Attachment A1, Section A1-1d(2) and the associated footnotes are adequate to describe its use at both the TRUDOCKs and the bolting station. See response to comment 15 regarding excluding any further description of the vent hood system from the Permit.	No
	Class 2 PMR - TRUPACT-III Request Does Not Meet Requirements (Continued)	Underground emplacement also is different for the SLB2 than for other CH packages. Proposed changes to A2-2b provide that the SLB2 will be placed on the underground room floor. The modification request states that "one additional payload assembly other than an SLB2 or a Ten-Drum Overpack may be placed on top of the SLB2." at pp. 6-7. However, that language is not included in the proposed permit language, therefore allowing any containers to be placed on top of the SLB2. There is no showing that placing all other containers on top of the SLB2 would not endanger workers or public health and the environment. Once again, actual permit language is required to comply with RCRA and the HWA.	The requirement that SLB2s be placed directly on the floor is sufficient to protect human health and the environment; NMED would be concerned if an SLB2 could be stacked on top of other payload assemblies. Due to the height of the SLB2 (and the TDOP), the limitation that "one additional payload assembly other than an SLB2 or a TDOP may be placed on top of the SLB2" is more an informational statement of physical limitation due to the height of the roof and the need to emplace backfill on top of the stack than a requirement that needs to be included in the Permit. Increased specificity would also hamper the Permittees' operational flexibility. No change has been made in response to this comment.	No

Comment	Topic Area	Comment Summary	Response	Δ
Number				
	Class 2 PMR - TRUPACT-III	The DAC Report (Attachment C of the request) bases some of the calculations on the internal dimensions of the SLB2. at 2. But the references do not provide a basis for the dimensions, and the	See response to comment 13 for the source of internal dimensions of the SLB2.	No
	Request Does Not Meet Requirements (Continued)	supporting documentation that presumably documents the dimensions has not been made publicly available. The DAC Report (Attachment C of the request) uses 50 percent and 75 percent void volumes, but does not provide any factual basis for those void volumes being conservative. Neither the DAC Report, nor the modification request, include any information about the void space in SLB2s that have already been loaded at generator sites. Thus, there is no factual basis to support the DAC values proposed in the modification request as being conservative and protective of human health and the environment.	Compared to previous PMRs addressing DAC, assumptions of 50 and 75 percent void volume for the SLB2 seem sufficiently conservative. Void volumes used in DAC calculations for 100- and 85-gallon drums were 20%, and for the TDOP it was only 2% (100 liters void volume out of 4500 liters total volume). The calculations for SLB2 show that greater void volumes result in longer DAC. NMED's observation of RTR videos of SLB2s from Savannah River Site indicate the modeled void volumes are consistent with waste that has already been packaged. NMED concludes the DAC assumptions and calculations are appropriate, and that the resulting DAC values are conservative and protective of human health and the environment.	
20	Class 2 PMR - TRUPACT-III Does Not Demonstrate Protection of Public Health & Environment	C. The request does not demonstrate that use of the TRUPACT-III and SLB2 will protect public health and the environment. §74-4-4 NMSA. Given the incomplete information and the lack of adequate description for some equipment and procedures, protection of public health and the environment has not been demonstrated. The fact is that the request would result in much new handling of CH waste with new equipment, new procedures, and in a new area of the WHB that are substantially different from those used in the past 11 years. In modifying the permit to allow new packaging or waste containers, NMED should require procedures at least as stringent as those for other CH waste. But such requirements to protect public health and the environment are not included in the modification request. In the underground, the lack of specificity about what containers can be placed on top of the SLB2 allows emplacement in ways that could result in hazards and accidents that are not protective of human health and the environment	It is NMED's position that there has been no reduction in requirements for managing of waste transported in TRUPACT-III shipping containers or managing, storing, or disposing of waste in SLB2 payload containers, and that new requirements in the modified Permit are consistent with previous requirements in the existing Permit for CH waste received in TRUPACT-II and HalfPACT shipping containers. Inclusion of more prescriptive language would unnecessarily hamper the Permittees' operational flexibility to manage their operations. See also responses to comments 15, 17, and 18.	No

Comment	Topic Area	Comment Summary	Response	Δ
	Class 2 PMR - TRUPACT-III Inconsistencies and Errors	2. The request includes inconsistencies and errors. The NRC COC limits each TRUPACT-III to "only one SLB2." #5(b)(2). However, in proposed Permit Attachments A1-1d(2) and A4-3, there is not such specific language, while in some parts of the request, the correct language is used. In Permit Attachment A2-2a(1), the request introduces a new, undefined concept – underground emplacement "in the waste array." (A forklift will be used to offload the SLB2 from the underground transporter and emplace the waste container in the waste array.) SRIC knows of no other place in the permit where such terminology is used, nor is there any definition of what a "waste array" would be. Such language is inappropriate and should not be incorporated into the permit.	Permit Attachment A1, Section A1-1d(2) and Permit Attachment A4, Section A4-3, have been revised to state, "The TRUPACT-III holds a single SLB2." The sentence in Permit Attachment A2, Section A2-2a(1) has been revised to state, "A forklift will be used to offload the SLB2 from the underground transporter and emplace the waste container in the waste stack."	Yes
22	Class 2 PMR - TRUPACT-III	Concerned Citizens for Nuclear Safety (CCNS), Citizens for Alternatives to Radioactive Dumping (CARD), and Nuclear Watch New Mexico join in these comments. Thank you very much for your careful consideration of, and your response to, these and all other comments	Comment noted. No response is required.	No