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**NEW MEXICO
ENVIRONMENT DEPARTMENT**

Hazardous Waste Bureau

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RON CURRY
Secretary

SARAH COTTRELL
Deputy Secretary

April 8, 2010

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

Dear Interested Person:

On April 1, 2010, 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 in the following document:

- Request for Class 2 Permit Modification (Liquid, VE, NCRs), Letter Dated 1/7/10, Rec'd 1/7/10

The Permittees requested the following:

1. Change and clarify language regarding the liquid prohibition in the Permit;
2. Change and clarify language regarding the use of the visual examination method to characterize waste; and
3. Change and clarify the requirements regarding nonconformance reports.

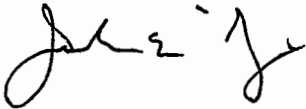
NMED approved this PMR with changes for the reasons specified in the attached response to comments. This Class 2 PMR was evaluated and processed in accordance with the requirements specified in 20.4.1.900 NMAC (incorporating 40 CFR §270.42(b)). It was subject to a sixty (60) day public comment period running from January 13, 2010 through March 15, 2010, during which NMED received written specific comments from a total of five individuals and organizations. NMED's general responses to the comments related to the submitted PMR are summarized in the attachment to this letter.

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Further information on this administrative action may be found on the NMED WIPP Information Page at <<http://www.nmenv.state.nm.us/wipp/>>. 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
David Moody, DOE/CBFO
Farok Sharif, Washington TRU Solutions LLC

**NMED GENERAL RESPONSE TO COMMENTS ON CLASS 2 PERMIT MODIFICATIONS TO WIPP
HAZARDOUS WASTE FACILITY PERMIT (WIPP PERMIT)
SUBMITTED JANUARY 7, 2010**

Item 1. Change/clarify language regarding liquid prohibition in the Permit

Background: The permit modification request (PMR) proposed to change the liquid prohibition in the Permit. The existing Permit stated, “Waste shall contain as little residual liquid as is reasonably achievable by pouring, pumping and/or aspirating, and internal containers shall contain less than 1 inch or 2.5 centimeters of liquid at the bottom of the container. Total residual liquid in any payload container (e.g., 55-gallon drum, standard waste box, etc.) may not exceed 1 percent volume of that container.” The PMR proposed replacing “residual liquid” with “observable liquid” and replacing the 1 inch limit in internal containers with a de minimis volume of 60 milliliters (mL) or 3 percent, whichever is greater, as long as the overall 1 percent liquid limit was not exceeded for the waste container. The PMR would allow more than 3 percent in internal containers if acceptable knowledge (AK) demonstrated that the liquid was not ignitable, corrosive, or reactive. The PMR clarified that overpacking or redistributing untreated liquid within the container was not allowed as a method to meet the liquid prohibition volume limits. Finally, the PMR defined two terms (“internal container” and “observable liquid”), replaced “payload container” with “outermost container at the time of radiography or visual examination” to make it clear to which container the overall 1 percent liquid limit applied, and proposed a few other minor edits for consistency.

Comments: Most of the comments NMED received on the Class 2 PMR addressed this item. Several commenters believed that the result of implementing this change would allow more liquid to be managed at WIPP. Some thought that 1 percent of a 55-gallon drum, or 2 liters (L), was too much liquid to allow. Several thought that setting a de minimis amount that could vary (either 60 mL or 3 percent) was confusing, and one proposed a fixed limit of 45 mL. Several commenters thought the allowance for greater than the de minimis amount based upon AK was inappropriate. One commenter thought the new definition for internal container that excluded “debris not intended to hold liquid at the time of original waste packaging” would be difficult to objectively determine. One commenter thought the 1 inch criteria is not appropriate, but that percentages were also difficult to determine. One commenter also linked significant emissions of carbon tetrachloride in the WIPP underground with increased liquid in the waste.

Response: In response to public comment, NMED approved the modification with changes. One significant change was to reject the use of AK to allow greater than 60 mL or 3 percent liquid in internal containers. NMED rejected this provision for three reasons. First, NMED is concerned about AK’s ability to accurately and unequivocally determine that any liquid in a waste stream could not be ignitable, corrosive, or reactive. Second, NMED believes that the number of waste streams for which AK could make such a determination is very small. Finally, NMED believes it would be extremely rare to have a container in such a waste stream with liquid in an internal container exceeding the de minimis or 3% limit. Therefore, it would be exceedingly unlikely that this provision would be invoked.

NMED does not believe that approving the PMR with changes would necessarily result in more liquids being managed at WIPP. With respect to allowing up to 1 percent liquid in a waste container, this value has not changed except to replace “residual” (a very subjective

term) with “observable” (a much more objective term), making compliance easier to determine. The previous 1 inch criterion for internal containers was highly dependent upon the orientation of the container, and replacing it with a volume or percentage will be easier to evaluate. NMED believes that multiple requirements are readily addressed by proper training, and NMED believes that 60 mL is an appropriate de minimis limit for small internal containers, representing 3% of a 2 L bottle. This reflects the “RCRA empty” concept, and acknowledges the intent to minimize radiation hazards associated with remediating small amounts of liquid if the overall volume of liquid in a waste container remains below 1%.

Regarding the issue of excluding certain debris from the definition of internal containers, NMED incorporated a comment from the Permittees and changed the definition to read, “...debris not designed to hold liquid at the time of original waste packaging,” in order to exclude items such as tubing or flashlights.

Finally, NMED does not believe that there is any connection between carbon tetrachloride emissions and liquid in containers.

Item 2. Change/clarify language regarding use of the visual examination method to characterize waste

Background: The PMR proposed to allow the Permittees to change the description and requirements for visual examination (VE) in the Permit. The intent was to create more detailed requirements and use consistent terminology within the various attachments to the Permit that describe the VE process. One proposed change was to move detailed descriptions of VE from Attachment B (Waste Analysis Plan) to Attachments B1 (Waste Characterization Sampling Methods) and B7 (Permittee Level TRU Waste Confirmation Process) in order to achieve consistency. Another proposed change was to replace the terminology “visual examination technique” and “VE in lieu of radiography” simply with “visual examination” or “VE”. The PMR proposed to change “visual examination records” and “packaging logs” to “waste container packaging records” and “packaging records” when the Permit describes the ability to use these records to satisfy the VE requirements for waste that had been previously packaged. The PMR proposed to clarify that when VE is performed using two operators, the second operator must also directly observe the waste being examined rather than simply verifying paperwork. The PMR added training requirements for VE operators to ensure they would recognize situations when VE was insufficient to meet the requirements of the Permit and thus could not be used. Finally, the PMR added language requiring justification by the generator/storage site for the selection of radiography and/or VE as the appropriate method(s) of waste characterization for each waste stream, subject to review and approval by the Permittees.

Comments: One commenter objected to the deletion of language in Attachment B that defined VE as “opening a container and physically examining its contents.” Another commenter objected to the deletion of language in Attachment B1 that required VE to describe “all contents of a waste container, clearly identifying all discernable” waste items, and changing it to require VE to “identify and describe waste items...” This commenter similarly objected to deleting the qualifier “all discernable” in Attachment B7. In response, the Permittees justified the deletion of “all” in these two locations by asserting the inclusion of “all” presents a problem with regard to implementation because it implies that an operator

would have to, for example, "count the number of washers in a bag" when it is only be necessary to identify a bag of washers in order to describe the item and quantify the associated material parameter weights.

Response: In response to the first commenter, NMED noted that the descriptive language for VE is in Attachment B1, Section B1-4, and that VE may not always involve "opening a container" if the waste is newly generated and is being visually examined at the time of packaging. NMED modified the language in Section B1-4 from the proposed "Visual examination may be performed on waste containers..." to read, "Visual examination may be performed by physically examining the contents of waste containers ..."

In response to the comments regarding the use of the word "all," NMED saw no compelling reason to remove the word as proposed in the PMR. It is not NMED's intent that VE operators be required to enumerate minutiae to satisfy the requirement to "identify and describe all waste items..." This requirement has been in the permit since issuance in 1999, and generator/storage sites have consistently demonstrated their ability to meet this requirement during waste characterization audits. The Permittees should ensure that sites continue to implement this requirement by reviewing and, if necessary, revising guidance and procedures used by the sites to comply with this requirement.

Item 3. Change/clarify requirements regarding nonconformance reports

Background: The PMR proposed to clarify and add language to ensure that nonconformances noted during waste characterization by the generator/storage site were dispositioned before shipment of the affected waste container to WIPP for disposal.

Comments: NMED received one specific comment regarding this item. The commenter believes that *shipping* a container with an unresolved NCR should not constitute a violation of the Permit, but *acceptance* of that container at WIPP would be a violation. The commenter proposed alternate language in Section B3-13 from that proposed in the PMR in an attempt to reflect this, although it was not clear from the proposed language whether the violation would be clearly identified upon initial receipt of the waste at WIPP.

Response: NMED believes it is imprudent for WIPP to knowingly receive a container that would result in a violation. Allowing shipments from generator/storage sites but prohibiting their receipt at WIPP is a logical inconsistency. Furthermore, the language in Section B3-13 also includes a provision that containers selected for confirmation must undergo examination of any NCR documentation to verify that NCRs have been dispositioned for that container. Confirmation must be performed prior to shipment, and thus it makes sense that NCRs for all containers must be dispositioned prior to shipment, not after receipt at WIPP.



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