



GARY E. JOHNSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Telephone (505) 428-2500
Fax (505) 428-2567

www.nmenv.state.nm.us



PETER MAGGIORE
SECRETARY

December 21, 2001

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

Dear Concerned Citizen:

The New Mexico Environment Department (NMED) has taken final administrative action on three Class 2 permit modification requests to the WIPP Hazardous Waste Facility Permit, as submitted to the Hazardous Waste Bureau in the following document:

- Request for Class 2 Permit Modifications and Temporary Authorization, Letter Dated 8/28/01, Rec'd 8/29/01

The Department of Energy Carlsbad Field Office and Westinghouse TRU Solutions LLC (**the Permittees**) identified three separate items in their modification submittal:

- Item 1 (Using Composite Headspace Gas Data and Compositing up to 20 Samples)
- Item 2 (Establishing Safety Conditions for Visual Examination (VE) of Waste Containers)
- Item 3 (Taking Samples of Headspace Gas through Existing Filter Vent Holes)

On September 24, 2001, NMED denied the Permittees' request for temporary authorization, ordered the Permittees to clarify some of the conflicting statements in their proposed modification regarding the classification of the request, and required them to reissue a public notice for the modifications. On September 28, 2001, the Permittees submitted revisions to their modification request as public comment. On November 27, 2001, after consideration of all public comment, NMED approved Items 1 and 3 with changes, and denied Item 2.

These modifications were processed by NMED in accordance with the requirements specified in 20.4.1.900 NMAC (incorporating 40 CFR §270.42(b)), and were subject to a sixty (60) day public comment period, which ran from September 4 through November 2, 2001. NMED

011217



December 21, 2001

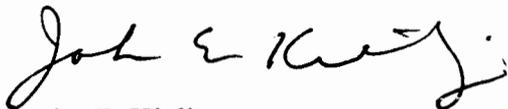
Page 2

received written comments from ten individuals and organizations during this time. NMED's general responses to the comments are incorporated in the attachment to this letter.

Further information on this administrative action may be found on the NMED WIPP Information Page on the World Wide Web at <<http://www.nmenv.state.nm.us/wipp/>>.

If you have any questions regarding this matter, please contact Steve Zappe at (505) 428-2517.

Sincerely,



John E. Kieling
Manager
Permits Management Program

Attachment

cc: James Bearzi, HWB
Steve Zappe, HWB
Inés Triay, DOE/CAO
John Lee, Westinghouse

**NMED RESPONSE TO COMMENTS ON CLASS 2 MODIFICATIONS TO WIPP
HAZARDOUS WASTE FACILITY PERMIT
RECEIVED AUGUST 29, 2001**

Item 1. The Permittees proposed a Class 2 permit modification to establish conditions under which headspace gas (HSG) samples taken from waste containers during characterization activities may be composited in the laboratory prior to analysis. As a condition of allowing sites to composite HSG samples, the permit modification also proposed establishing specific reporting criteria for tentatively identified compounds (TICs). Public comments submitted included the following concerns:

1. Compositing may cause dilution, resulting in analytical "false negatives" because the composited HSG concentrations would be below detection limits. There is a general concern that drums with "unsafe" concentrations of volatile organic compounds (VOCs) would be shipped because the actual concentration would not be known and would be averaged to a lower concentration if composited.
2. Because the compositing demonstration provided in the request was limited to two generator sites (RFETS and INEEL), the results may not be representative of wastes from other sites.
3. Allowing compositing would compromise the effectiveness of confirming acceptable knowledge (AK) with HSG. Any HSG sampling used to confirm the waste stream assignment for a container shouldn't be composited.
4. It is inappropriate to limit the TIC reference spectra library to only VOCs for HSG sampling.
5. The claim made by the Permittees that the detection standards as proposed are sufficient to identify TICs in composited samples was not supported by data.

Response: NMED considered all public comment and information provided by the Permittees, and decided to approve the requested permit modification with changes. The following explains how NMED assessed the issues raised by the public, and is offered to explain how NMED's decision was made:

1. NMED understands the concern that compositing would dilute samples with high VOC concentrations. However, all sites will need to establish detection limits that are less than or equal to the associated quantitation limits (i.e., the ability to quantify concentrations) when composited samples are analyzed in order to demonstrate that they are capable of detecting and reporting TICs as well as potentially diluted target analytes. Also, NMED notes that the permit does not limit HSG VOC concentrations on a per container basis such that a drum would be identified as "unsafe"; HSG values are only used to confirm AK and to determine whether VOC room limitations in the underground disposal units are being exceeded.
2. Compositing appears to be independent of the waste type or waste stream, and is more a function of analytical instrument sensitivity. However, procedures for compositing HSG will be subject to audits at generator site by DOE and observation by NMED.
3. NMED understands the concern that the compositing of HSG samples as part of waste stream confirmation might corrupt that process. This could occur if an individual drum containing VOCs not expected to be in the waste stream by AK is diluted, thereby inappropriately "confirming" drum contents and the AK waste stream determination. NMED has examined the UCL₉₀ calculations provided by the Permittees, and believes that UCL₉₀ calculations for composited samples will generally be equivalent to or more conservative than calculations performed on

NMED Response to Comments
(continued)

individual sample containers. It is also possible that an individual drum with relatively high VOC concentrations could result in the assignment of VOCs to other containers that normally would not be assigned those constituents without the compositing process. In this case, generator/storage sites could elect to resample the composite grouping individually to identify the suspect container rather than assign all constituents to each container.

4. NMED notes that the limitation of reference spectra to VOCs applies only to HSG analysis, where VOCs are the only constituents of interest. Limiting the TIC library for HSG analysis to a subset of hazardous constituents that includes only VOCs will ensure that false positives (i.e., metals and SVOCs) are not reported.
5. NMED believes that the TIC reporting criteria incorporated in the permit as modified mitigate concerns regarding detection and subsequent reporting of TICs in composite samples by establishing proportional reporting level requirements. In order to composite a greater number of samples, the sites will need to demonstrate and document that their analytical instruments are capable of detecting progressively lower concentrations of constituents.

Item 2. The Permittees proposed a Class 2 permit modification to establish safety criteria for selecting containers for visual examination (VE) as a QC check on radiography. For example, the proposed modification would allow containers to be rejected due to high radionuclide content, broken glass, or sharp objects. If a waste container was randomly selected for VE and didn't meet the safety criteria, another container would be randomly selected from the same Summary Category Group. Public comments submitted included the following concerns:

1. The Permittees need to demonstrate that it is statistically defensible to withdraw a container from consideration and substitute another container selected from the general population.
2. Safety could be used as an excuse to eliminate problem containers from VE.
3. The proposal does not specify the safety criteria for establishing conditions upon which waste containers will be selected for VE.
4. The proposal does not state what new grounds of selection will be employed nor does it place any real restriction upon sites' decisions to adopt new selection criteria. This could result in biasing and could affect the validity of the confirmation process.
5. The permit currently allows the results of radiography to be made available to VE personnel prior to VE activities if items or conditions that could pose a hazard were identified. With such information, VE personnel can already take necessary precaution when opening the drum and examining the contents.
6. Worker safety should not be used as an excuse to take away public safeguards. Worker equipment, tools and procedures can be upgraded.

Response: NMED considered all public comment and information provided by the Permittees, and decided to deny the requested permit modification because it was sufficiently vague as to require additional clarification before modifying the permit to incorporate the change. The apparent, and commendable, intent of Item 2 was to offer generator sites certain flexibility with respect to containers undergoing visual examination such that containers deemed "unsafe" would not need to be opened. However, "container safety conditions" was too vaguely defined, and could result in inconsistent interpretation from site to site. Also, the statistical implications of removing drums from the visual examination pool were not adequately explained. While it is often possible to mitigate "unsafe" conditions

NMED Response to Comments
(continued)

through physical changes to operations rather than abandoning the container altogether, NMED was concerned that such vague language may result in serious differences of interpretation and potential abuse.

Item 3. The Permittees proposed a Class 2 permit modification to change the methods used to obtain the headspace sample for certain types of containers. The proposed modification would allow sites to (1) use a self-tapping screw to gain access to the drum headspace instead of using a punch and (2) to replace the existing drum filter with an airtight seal for sampling the headspace in drums and pipe overpack containers (**POCs**). Public comments submitted included the following concerns:

1. While the modification provides supporting evidence to show that removal of filters for HSG sampling in POCs is justified, it does not provide any studies related to drums or standard waste boxes.
2. The proposed modification would allow the filter body to be removed and “replaced as quickly as is practical with the airtight sampling apparatus.” The length of time should be quantified in the proposal.
3. The request for sampling through the filter vent hole seems to be a problem associated only with POCs, yet the request applies to all containers.

Response: NMED considered all public comment and information provided by the Permittees, and decided to approve the requested permit modification with changes. The following explains how NMED assessed the issues raised by the public, and is offered to explain how NMED’s decision was made:

1. NMED agrees with the concern that removal of filter vents for HSG sampling on containers other than POCs is of question because no information was provided for them.
2. NMED agrees that this process allows the potential for HSG to escape before the sampling apparatus is installed, particularly if a filter is removed from a drum or standard waste box. The requirement to demonstrate that the time between removing the filter and installing the airtight sampling device has been established by testing to assure a representative sample has been retained.
3. NMED agrees that the permit modification request should be limited to POCs.

Because of these issues, NMED limited the approved modification to the use of the self-tapping screw for drum lids and sampling through the existing filter vent hole of POCs.

General Comments. Additional public comments submitted included the following general concerns:

1. DOE shouldn’t be allowed to submit any more incomplete requests that waste the citizens’ time, energy and taxpayer money. NMED should either deny incomplete requests outright or review them and then not allow DOE to submit the same basic request again.
2. NMED should impose strict penalties on violation of the permit, including practices allowing use of inappropriately classified permit modifications request that were erroneously put into effect by the Permittees months ago.

NMED Response to Comments
(continued)

3. The proposed permit modification requests are just a way for DOE to get waste to the WIPP faster without concern for environmental and health risks, and NMED should not approve this modification because of this reason.

Response: NMED considered these general comments and provided the following responses:

1. NMED cannot limit the Permittees' requests for modifications in the manner suggested by the comment. The regulations allow the Permittees to determine when to submit modification requests to the agency for consideration under the permit modification process.
2. Enforcement actions and the fate of inappropriately classified Class 1 permit modification requests are not within the scope of a permit modification request. However, NMED did issue a notice of violation on September 24, 2001 associated with submitting and putting into effect modifications that failed to meet the requirements for Class 1 modifications (i.e., self-implementing, non-substantive, trivial, and easily reversible). The three items contained in this modification request were the subject of that notice of violation.
3. NMED has discussed the permit modification process at length with the Permittees. NMED also believes it has appropriately considered all modification requests to date. Past experience with other modifications is not sufficient justification for denying the current modification.