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PETER MAGGIORE
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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 19, 2002

Dr. Inés Triay, Manager
Carlsbad Field Office
Department of Energy
P. O. Box 3090
Carlsbad, New Mexico 88221-3090

Mr. John Lee, General Manager
Westinghouse TRU Solutions LLC
P.O. Box 2078
Carlsbad, New Mexico 88221-5608

**RE: NOTICE OF DEFICIENCY (NOD), CLASS 3 PERMIT MODIFICATION REQUEST FOR
CENTRALIZED WASTE CONFIRMATION
WIPP HAZARDOUS WASTE FACILITY PERMIT
EPA I.D. NUMBER NM4890139088**

Dear Dr. Triay and Mr. Lee:

The New Mexico Environment Department (NMED) has reviewed the following document for administrative completeness and technical adequacy:

- Request for Class 3 Permit Modifications (Centralized Waste Confirmation), Letter Dated 6/5/01, Rec'd 6/6/01

NMED has determined that this Centralized Waste Confirmation Facility (CCF) permit modification request is administratively complete. The New Mexico Hazardous Waste Fee Regulations require assessment of fees when administrative review of a document is complete, as specified in 20.4.2.301 NMAC. NMED will issue an invoice to you under a separate letter. Payment is due within sixty (60) calendar days from the date that you receive the invoice.

This Class 3 permit modification request is currently being processed by NMED in accordance with the requirements specified in 20.4.1.900 NMAC (incorporating 40 CFR

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§270.42(c)). This permit modification request was initially subject to a public comment period from June 13 until August 13, 2001. Upon request from several groups, NMED issued a letter on July 25, 2001 extending the public comment period until September 27, 2001. At the close of the public comment period, NMED had received comments from 477 individuals and groups totaling approximately 550 pages, as well as 416 duplicated post cards opposing the permit modification request and 34 pages of form letter comments.

After reviewing the permit modification request, NMED has found it to be technically deficient. The attached Notice of Deficiency (**NOD**) comments list the requested information necessary for NMED to consider preparation of a draft permit. The NOD comments contain requests for specific information from each of the four items comprising the permit modification request (i.e., waste confirmation at the WIPP facility, additional storage capacity and additional container storage locations, increase in storage time, and prohibited items).

One of the primary concerns identified in the modification request is using the CCF to shift waste characterization responsibilities from the waste generator, as currently required in the Permit, to the waste disposer. Comments received from EPA Region 6 on September 26, 2001 clearly identify potential regulatory problems with waste generators not fulfilling their responsibilities under 20.4.1.300 NMAC (incorporating 40 CFR §262). These potential problems are a manifestation of the waste characterization approach included in the permit modification request that limits the definition of “waste characterization” to acceptable knowledge documentation only, and proposes a new, separate activity called “waste confirmation” that is only required after waste has been transported from the generator/storage site to WIPP.

The NOD comments also identify problems arising from retention of the existing waste characterization program at “large quantity sites”, while at “small quantity sites” imposing new (and in some cases, apparently conflicting) requirements for a partitioned characterization/ confirmation program. NMED recognizes the motivation for distinctions in requirements for large versus small quantity sites; however, NMED is concerned that the permit modification request may be unworkable because many requirements are not clear and consistent.

The CCF modification request creates additional container storage locations and increases storage capacity, but does not clearly limit storage capacity in each discrete area to a proportion of the cumulative maximum capacity of the Waste Handling Building Unit as a whole. This will result in difficulties implementing the verification procedure for checking capacity compliance. Likewise, the proposal to manage prohibited items, if fully implemented, may result in violations of the Permit upon receipt of such items. Furthermore, some of the activities proposed for managing these items would require a permit modification for treatment.

Please submit a full response to the deficiencies identified in the attachment to NMED within thirty (30) days of receipt of this NOD. We understand that a response to some of the

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comments listed in this NOD may require more than 30 days to develop. For this reason, NMED will consider a petition to extend the deadline for portions of the required information if you provide a written justification and expected submittal date for each portion.

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

Sincerely,

James P. Bearzi
Chief
Hazardous Waste Bureau

Attachment – NMED Notice of Deficiency Comments

cc: Greg Lewis, NMED WWMD
John Kieling, NMED HWB
Steve Zappe, NMED HWB
Chuck Noble, NMED OGC
Cindy Abeyta, NMED HWB
Betsy Forinash, EPA ORIA
Laurie King, EPA Region 6
Connie Walker, TechLaw
File: Red WIPP '02

NMED NOTICE OF DEFICIENCY COMMENTS
ON
CLASS 3 PERMIT MODIFICATION REQUEST
FOR
CENTRALIZED WASTE CONFIRMATION FACILITY AT WIPP

Introduction. The comments below reflect NMED’s careful analysis of the Centralized Waste Confirmation Facility (CCF) permit modification request and comparison of the proposed changes with the requirements specified in the New Mexico Hazardous Waste Management Regulations (20.4.1 NMAC) and with the administrative record for WIPP Hazardous Waste Facility Permit established during the 1999 public hearing. This analysis has led NMED to conclude that the changes proposed in the CCF permit modification request fundamentally change the foundation upon which the current permit is based, and as a result, have far reaching implications on many aspects of the WIPP permit.

NMED recognizes the purpose of Class 3 modifications to be changes that substantially alter the facility or its operation (40 CFR §270.42(d)(2)(iii)), and that it is the Permittees’ prerogative to propose such modifications to the WIPP Permit. These comments are substantially focused on the potential problems and issues raised by allowing the acceptance of incompletely characterized waste at WIPP. If adopted, this permit modification would alter the fundamental principle of the WIPP waste analysis plan (WAP), which currently requires full characterization of all waste before it can be managed, stored or disposed of at WIPP (Permit Condition II.C.1). Incomplete characterization of waste prior to receipt at WIPP may be inconsistent with the requirements of 40 CFR §264.13 and §270.32. Additionally, the Secretary of the Environment Department specifically determined that the WAP characterization procedures (which require full characterization prior to receipt) were necessary to protect human health and the environment:

“The disposal of significant quantities of waste that has not been characterized in accordance with the WAP poses a direct threat to human health and the environment. Indeed, waste characterization is “the linchpin” of the HWA and RCRA. RP No. 130 (Non-Mixed Waste, pgs. 4-5); Tr. 2426-28 (S. Zappe).” *HRM 98-04(P), Finding No. 262, Rec. Dec. dated Sept. 9, 1999 as adopted by Final Order of the Secretary dated Oct 27, 1999.*

Item 1 – Waste Confirmation at the WIPP Facility

1. **Differentiation Between Characterization and Confirmation.** The permit modification request seeks to distinguish between waste characterization and confirmation as two separate activities. However, it is NMED’s interpretation and belief that all of the activities used to assess waste as presented in the Permit constitute characterization, and that separation of activities does not accurately reflect the requirements of the regulations, the intent of the original application as submitted by the Permittees, or the intent of the Permit as issued by NMED.

Attachments to the Permit clearly indicate that acceptable knowledge (AK), headspace gas (HSG), solid sampling (SS), visual examination (VE), and radiography (RTR) are all considered waste characterization elements. For example, the Waste Analysis Plan (WAP), Attachment B, page B-4 states:

“Waste characterization activities at the generator/storage sites include the following, although not all these techniques will be used on each container, as discussed in Section B-3:

- Radiography...
- Visual examination...
- Headspace-gas sampling...
- Sampling and analysis of waste forms that are homogenous...
- Compilation of acceptable knowledge documentation...”

The Permit includes dozens of references and discussions supporting the interpretation that characterization includes AK, VE, RTR, HSG, and SS.

NMED acknowledges that the term “confirmation” (or “verification”) is used in the Permit in conjunction with acceptable knowledge, but this is considered an integral part of the acceptable knowledge characterization process, rather than a separate and separable activity. For example, the Permit states:

“B-3 Characterization Methods

The characterization techniques used by generator/storage sites include acceptable knowledge, which *incorporates* confirmation by headspace-gas sampling and analysis, radiography, and homogeneous waste sampling and analysis. All confirmation characterization activities are performed in accordance with the WAP.” [emphasis added]

The Permittees’ “Basis” discussion in the permit modification request cites appropriately this passage, but attempts to draw an analogy between these confirmation activities and 40 CFR §264.13(b) and (c) requirements. Section (b) requires development of a waste analysis plan, and Section (c) requires inspection/analysis of waste movement at offsite facilities (i.e., “fingerprinting”). In so doing, the Permittees attempt to establish that the “confirmation” activities are simply a check of acceptable knowledge analogous to waste “fingerprinting” that facilities that collect waste from off-site generators perform to “confirm” that the waste accepted is indeed what the generator claims to have sent.

NMED believes this analogy is erroneous. Separation of the characterization activities into two distinct events, one of which is apparently deemed analogous to “fingerprinting” by the Permittees, is inconsistent with the intent of the Permit as issued by NMED, which clearly recognizes AK, VE, RTR, HSG, and SS as characterization processes. The term “confirmation” may be confusing to some, in that sampling and analysis data are compared to AK information to develop an accurate characterization picture of waste. The perception that HSG/SS/VE/RTR and AK are separate and distinct activities could be interpreted as such because the information is reported separately on the Waste Stream Profile Form (**WSPF**) provided for each waste stream. NMED’s interpretation is also based on direct observation of how the Permittees actually audit the implementation of the characterization requirements at generator/storage sites.

NMED observers at generator site audits note that the Permittees’ auditors are required by the Permit to perform a “traceability” analysis as part of the AK audit, whereby all information available for a container is examined. This analysis includes examination of mandatory and supplemental written information included in the AK compilation activities, in addition to examination of HSG, RTR, VE, and SS information (as applicable) for that container, thus examining the complete characterization package for the subject container. NMED observers also note that sites integrate sampling and analysis information into their AK record and AK summary documents, further supporting NMED’s belief that all

information is considered characterization data that, when combined with the AK information, produces the complete characterization package.

NMED also notes that if AK “characterization” and VE/RTR/HSG/SS “confirmation” were analogous to “obtaining a detailed chemical and physical analysis” and “fingerprinting”, respectively, then the process detailed in the current Permit would be quite different in that it would mirror activities that occur at a typical disposal facility. As specified in 40 CFR §264.13(a)(1), treatment, storage, and disposal facilities (TSDFs) are required to obtain a detailed chemical and physical analysis of waste prior to treatment, storage or disposal. Furthermore, any TSDF such as WIPP accepting waste from offsite is then responsible under 40 CFR §264.13(c) for performing a “fingerprint” analysis to check the detailed information obtained from the generator. If fingerprinting shows the waste to be different from what the generator said it was, the waste is typically rejected and sent back to the generator. Consistent with applicable regulations, the WIPP Permit includes a process for integrating HSG, VE, RTR, and SS information *as an inseparable part of* obtaining the detailed chemical and physical analysis (through the AK “confirmation” process), thus indicating that the intent of sampling and analysis is not directly analogous to at-WIPP fingerprinting.

To summarize, NMED does not view the AK characterization and sampling processes within the Permit as separate activities, one of which is performed to obtain the detailed chemical and physical analysis required in 40 CFR §264.13(a) (i.e., AK), and the other required to comply with 40 CFR §264.13(c) “fingerprinting” elements (i.e., HSG, VE, RTR, and SS). Rather, the Permit clearly recognizes these elements as integrated and *all* part of the “AK process” and AK record generation, and thus *all* are currently necessary to ensure that the detailed chemical and physical analysis required by 40 CFR §264.13(a) are obtained prior to receipt at the WIPP site, regardless of whether the waste will be stored or disposed.

2. **Storage vs. Disposal Characterization Requirements.** The Permittees’ permit modification request implies that there are different “levels” of characterization for storage vs. disposal of waste at WIPP, as well as for WIPP waste generators vs. the WIPP disposal facility. By artificially separating “characterization” and “confirmation” activities, the Permittees appear to be attempting to establish AK as the sole characterization requirement necessary for storing waste at generator/storage sites, transporting waste, and storing waste at the WIPP, with

actual sampling and analysis performed only as a verification process. This approach raises questions about several aspects of the proposed process.

As indicated in Comment 1, NMED believes that full characterization includes confirmation, and that the activities therein are inseparable. Therefore, the assertion that different characterization elements can be applied is inconsistent with the WAP and with 40 CFR §264.13. Specifically, the Permit was written with the explicit requirement that all waste entering WIPP for storage and subsequent disposal would undergo characterization prior to acceptance at the WIPP facility; waste cannot currently be held in storage at WIPP without such characterization. Id. Therefore, waste stored and disposed of at WIPP must be fully characterized prior to acceptance, which includes RTR/VE and HSG as part of the AK process. The permit modification request attempts to establish that storage at WIPP *now* does not require the same level of characterization as required when the Permit was finalized, but there is absolutely no information or supporting evidence provided to warrant such a significant change.

Also, the Permittees have attempted to distinguish between characterization necessary for transport and generator-site storage, and that which is necessary for disposal. The Permittees imply that characterization to “generator” requirements and transportation requirements using AK alone is sufficient. However, several commentors (including EPA Region 6) have noted that 40 CFR §262.11 requires the generator/storage sites to adequately characterize waste; regulations do not provide relief to the sites to postpone complete waste characterization as would be allowed if this modification was approved. Commentors believe that the permit modification request implies that generator/storage sites need not (or in some cases cannot) accurately characterize waste prior to transportation/disposal; this could result in waste being accepted at WIPP that is later found to have been inadequately characterized at the generator/storage site following “confirmation” at WIPP. EPA waste analysis guidance (1994, page 1-13) suggests that such verification upon receipt is used to check waste that has already been fully characterized, and is not an acceptable substitute for obtaining adequate characterization from the generator. This permit modification request would allow such a substitution to occur.

3. **Audit Process as Reflected in the Permit Modification Request.** The Permittees assert that the audit process as currently implemented remains unchanged as a result of this permit modification. NMED questions this assertion, as it appears to be unsupported by the permit modification request language. Currently, AK audits at individual generator/storage sites include not only

verifying the adequacy of the procedure, but also examining examples of implementation to ensure that individual sites are correctly implementing the procedure. While the “procedures” may be consistent (and therefore adequate) under the Permittees’ proposed plan, it is NMED’s experience that proper implementation of the procedures cannot be assumed at each site, and that examples of implementation must be audited on a site-specific basis. NMED also remains unconvinced that a “one size fits all” procedure could be developed under the Central Characterization Project (CCP). NMED’s observation of the initial audit at the Savannah River Site (SRS) in November 2000 and the first CCP audit at SRS in September 2001 illustrated the significant differences in procedure implementation that can occur at a site using the same AK database and similar procedural requirements based on the Permit. If such differences can occur through procedure implementation at a single site, it is difficult to see how the CCP could develop a single procedure that would be equally implemented at all sites.

To further elaborate, Attachment B7-1b indicates that an AK audit will only be conducted at the first site to implement the CCP AK procedures and that only a single annual audit of acceptable knowledge will be performed. However, every site has their own unique challenges in implementing AK procedures. As a result, the AK assembly, confirmation, record development, etc., varies from site to site. As a parallel example, every site is currently required to implement characterization procedures in accordance with the WAP through audit and approval from the Permittees. To date, no two characterization systems (including AK) have been the same, and each site has demonstrated unique deficiencies that have differentially impacted its ability to adequately characterize wastes, even though all sites are supposed to be implementing exactly the same requirements set forth in the WAP. This permit modification request significantly reduces the effectiveness of NMED in enforcement and monitoring of the Permit because of the large-scale reduction in the number and scope of characterization audits.

The permit modification request also appears to indicate that generator/storage sites with unapproved AK systems will still be allowed to characterize and ship wastes to WIPP as long as CCP personnel oversee the AK process. It is therefore unclear whether sites that choose to develop their own AK program or to use CCP support in a limited fashion, would still be subject to audit. Because of the level of reliance on AK for completion of the characterization process, the AK process must be well documented and demonstrated to be effectively implemented at each of the generator/storage sites. Assumptions of compliance should not be made by

the Permittees and will not be made by NMED without documented evidence through the audit process.

NMED questions how the permit modification request would alleviate the need to perform site audits because it supposedly applies only to debris waste, and site audits would still have to be performed for S3000 and S4000 retrievably stored waste. Additionally, NMED has observed that site implementation of AK requirements using “standard” procedures for retrievably stored waste may not be practical when dealing with newly generated waste.

4. **SQS Waste Characterization at LQS.** The Permittees do not discuss the option whereby waste from Small Quantity Sites (SQS) would be shipped to Large Quantity Sites (LQS) for characterization. The Permittees identify various impediments to this option, but clearly the use of existing facilities for waste characterization is much more cost effective than the construction of new facilities, if indeed cost is a driving factor for this modification. NMED has observed that many of the LQS currently store waste obtained from other LQS or SQS (e.g., Nevada Test Site, Idaho National Engineering and Environmental Laboratory), so the use of LQS to assist SQS is technically feasible. The Permittees must clearly and comprehensively provide information as to why the LQS option is infeasible.
5. **Mobile Vendor Costs.** The Permittees assert that mobile vendor costs at sites preclude characterization of SQS waste using mobile vendors, but do not present, in the permit modification request itself, specific supporting information. For example, the Permittees do not compare the cost of mobile vendors with respect to initiating the CCP at the WIPP facility. Also, the Permittees have already initiated a program very similar to the SQS vendor program (i.e., the CCP “traveling” program that has already been audited by the Permittees and approved by NMED at SRS). It is unclear how this aspect of the CCP, which apparently will support characterization at both WIPP and SQS through mobile vendors, is economical while the use of mobile vendors only at SQS is not.
6. **Purpose of the Modification.** The WIPP Permit is for waste storage and disposal, and was issued based on specific allowances and considerations made to the Permittees, who chose not to pursue a “typical” route with respect to permitting a RCRA disposal facility. The Permittees have historically claimed that on-site waste characterization at WIPP under 40 CFR §264.13(c) was neither feasible nor desirable, and hence different (and unique) considerations were taken into account when assessing how the Permittees would obtain the requisite

detailed chemical and physical analysis, and how the Permittees would ensure that waste delivered to WIPP for storage and disposal was chemically and physically that which the generator/storage sites had identified. For example, the Permittees do not perform on-site “fingerprinting” at WIPP, which would spot check waste accepted to ensure it is “what the generator sent.” The Permittees had argued that such “fingerprinting” was incongruous with the “Start Clean – Stay Clean” operating philosophy embraced by the Permittees at the time the Permit was issued, and indeed was an infeasible and undesirable alternative. Instead, the Permittees proposed traveling to sites and perform audits, thus ensuring that sites were performing waste analysis in compliance with the WAP and ensuring that waste received at the WIPP was “what the generator sent.” The permit modification request suggests the Permittees’ entire outlook and approach to waste characterization may now be very different than originally presented in their final permit application and at the 1999 WIPP public hearing. Therefore, NMED does not view the permit modification request as a “reorganization of activities”, as stated on page 11, because the specific actions and activities in the Permit were based on allowances and considerations that the Permittees now believe they do not need. Also, the Permittees have frequently expressed the desire to be “treated like other TSDFs”; with this in mind and the fact that the Permittees now believe it is feasible to conduct on-site characterization where it was previously deemed impossible, the Permittees should consider whether a more “standard” waste characterization approach for disposal facilities, such as presented in the recent Triassic Park Hazardous Waste Facility Permit issued by NMED, is preferable to the current WIPP waste characterization program.

7. **Audit Costs.** The Permittees assert that performance of audits is too costly, but do not provide any information regarding the cost and implementation of the permit modification request so that a comparison of audit vs. CCF costs can be made. The Permittees infer that the audit process associated with implementation of the CCP alone at the generator/storage sites is cost prohibitive (hence endorsing a single AK CCP audit), however the permit modification request includes no detailed, specific information pertaining to site audit costs, short of providing general establishment (3 million) and maintenance (1 million/year) costs. Also, this cost estimate does not differentiate between specific characterization elements comprising the audit, including requirements of DOE’s own NQA-1 compliance requirements. NMED cannot accept the assertion that the cost of audits is excessive without a cost breakdown between those elements required by the Permit versus those performed to support internal DOE or other audit requirements. Further, it is NMED’s belief that the primary reason why site audits seem so expensive is because generator/storage sites are often only ready to

characterize limited categories of their overall waste population at a time, and sites therefore request the Permittees to audit only small portions of their available waste streams. Significant audit time and taxpayer money could be saved if sites developed their programs and were prepared to characterize broad categories of their waste at the time of audit. NMED believes the continual need to revisit sites that are initially unprepared to fully characterize their waste is the cost barrier; an audit of each SQS would likely cost little more than an audit of an individual waste stream or waste stream groupings (with respect to auditor costs) and only a single audit would probably be required. Also, audit costs would be minimal if sites shipped to existing LQS for characterization where the audit process is already established (See Comment 4). NMED has seen several examples of where sites have shipped waste to other sites, and the second site subsequently characterized the shipped waste under their own audit and characterization programs.

8. **Regulatory Status of the CCP.** The Central Characterization Project is apparently a separate “entity” within the Permittees’ management/corporate structure that is charged with performing support characterization at generator/storage sites as well as proposed on-site characterization at WIPP (i.e., HSG, RTR, and VE). Currently, the Permit explicitly states that generator/storage sites perform characterization, not the CCP (Permit Condition II.C.1.a). Therefore, the Permittees’ assertion that no permit modification is necessary for the use of the CCP because the CCP conforms to the Permit is erroneous because the Permit itself does not recognize the concept of a CCP.

Also, the Permit currently requires that “sites” shall be approved through the Permittees’ audit program (Permit Condition II.C.2.a); it does not recognize approval of the Permittees themselves performing characterization required of the generator/storage sites (See Comments 1 and 3). Additional explanation and justification of the CCP along these lines is warranted. It is also unclear why the CCP generator-site support services would not in and of themselves provide sufficient and cost-effective support without the addition of the CCF at the WIPP facility.

9. **Intermediate Stage of the CCP with Respect to AK Identification of Prohibited Items.** The Permittees state that at the intermediate stage of the CCP, debris waste will be characterized at the generator/storage sites and certified free of prohibited items, but that under the current Permit the generators or the CCP may “use any method necessary to provide the required characterization program, as long as those methods are well documented and the results can be assembled in

an acceptable knowledge package that meets the data quality objectives (DQOs) and quality assurance objectives (QAOs) of the HWFP.” The CCF initiative is posed to implement this intermediate stage. However, the use of “*any methods necessary*” to provide the required characterization program is vague, as it implies that only limited characterization will be performed prior to waste shipment. Additionally, NMED has observed several times that many sites did not require exclusion of prohibited items from original waste generating processes, and the AK record could be vague in terms of the presence of prohibited items. The Permittees apparently believe that the AK record alone, without additional supporting RTR and VE, would be sufficient to detect the presence of prohibited items. Alternatively, perhaps the vague language is intended to allow sites any means necessary to identify prohibited items. Specific criteria to initiate this additional characterization must be specified to ensure that additional analysis will be required to be performed. NMED suggests that the individuals proposing this modification should attend audits and examine records from generator/storage sites before making such assertions.

10. **Final Stage Verification.** The Permittees state that the logical “final stage” would initiate a verification program at WIPP that would serve as an independent check of incoming waste using a combination of existing characterization processes, but this check is not considered in this permit modification request. NMED agrees with EPA (1994) that fingerprinting is desirable, but it cannot be a substitute for adequate waste characterization of the waste prior to storage or disposal. NMED believes that the current characterization program in place, implemented through the Permit, establishes a thorough characterization process whereby a detailed chemical and physical analysis is obtained prior to storage and disposal, and this description is “checked” by performing site audits rather than by “onsite” fingerprinting. That is, NMED considers site audits a preferable alternative to waste “fingerprinting.” The Permittees may consider whether the CCF could be altered to serve as a fingerprint program for waste from all generator/storage sites similar to the Triassic Park Permit (See Comment 6), thus reducing the need for site audits.
11. **Response to NMED Comments.** While acknowledging that the CCF is a Class 3 permit modification, the Permittees’ responses do not fully address NMED comments. For example, the Permittees believe they have adequately responded to NMED’s concerns regarding the audit process. While the Permittees reinstated the audit for the CCP, NMED believes a single audit for the CCP is inconsistent with the audit process (i.e., sites are audited; the CCP is not a “site”). NMED believes that implementing CCP procedures could have vastly different results or

issues at each site, and audits of each site choosing to use the CCP procedures would be necessary. Additionally, NMED does not agree with the Permittees' assertion that drum opening at WIPP was not proposed because "the need did not exist to open such containers." For years, the Permittees asserted that opening drums at WIPP was not only impractical, unfeasible, and undesirable, but would pose an unnecessary threat and was incongruous with the Permittees' original "Start Clean – Stay Clean" operating philosophy at WIPP espoused in the permit application (Chapter D, Section D-9b(1)(b)(ii), page D-33). With respect to AK, the process outlined in the Permit – which includes confirmation—is adequate to characterize waste prior to storage or disposal at WIPP. Whether process knowledge documentation alone is sufficient for shipment, NMED cannot say, but NMED has yet to observe AK characterization information that was not strengthened or even drastically changed by the "confirmation" step. NMED points out that sites rely heavily on the confirmation process to complete the characterization picture for waste. Also, NMED approval of the initial audit report, as proposed by the Permittees, would be a one-time event that would not be repeated for each site implementing the CCP. NMED disagrees with this approach: each site using the CCP to assemble AK must be audited. Also, while the modification request was improved to include a separate attachment dealing with on-site "confirmation", the permit modification request elsewhere leaves significant latitude and raises questions as to specifically how the process shall be implemented. See Comment 13.

12. **CCP Questions.** A number of questions or clarifications regarding the CCP need to be addressed. These include but are not limited to:
- NMED assumes (although it is not specified) that the CCP intends to use a single procedure or group of procedures to collect, assemble, etc., AK information. This is different from the current process whereby sites are allowed to generate their own AK procedures based on Permit requirements. It is NMED's direct experience that AK varies greatly between sites, and even if the same AK procedures were used, the actual implementation at each site would vary significantly. NMED believes that adequate implementation of the AK process cannot be fully evaluated with a single CCP audit because the example of implementation – required by the Permit – will be significantly different at each site.
 - NMED questions the interaction and integration of the CCP with the Permittees and allowable activities under the Permit. The Permit clearly requires audit of generator/storage site that are the "owners" of waste at

their sites. If the CCP is an agent of the Permittees and assumes control over audited waste, then the process is incompatible with a foundational principle of the Permit.

- The Permittees state that the CCP allows the Permittees to “exercise control over waste characterization and confirmation processes that are distributed at all sites throughout the DOE complex.” This differs from the current Permit, where generator/storage sites maintain control over their own waste. If the Permittees are allowed to “exercise control”, then the CCP is incompatible with the Permit.
- It is unclear whether sites that choose to assemble their own AK without benefit of the CCP will be audited; the permit modification request implies that all sites that do not perform their own confirmation will have CCP AK data assembly. This point is not clearly defined.
- Attachment B7-3 of the modification indicates that the CCP must participate in the Performance Demonstration Program (**PDP**). However, the PDP is administered by the Permittees. The Permittees must explain how the CCP will maintain independence with respect to the PDP.

13. **Adequacy of AK with Respect to Characterization Information.** NMED disputes the Permittees’ assertion that AK is being used at sites in a complete and thorough manner that can be clearly separated from the “confirmation” activities. NMED has repeatedly observed during audits that sites may assemble general AK information regarding “toxicity characteristics” and “listed waste”, and that AK is used to generally define waste streams. Contrariwise, sites rely heavily on the completion of the characterization process through AK confirmation results (i.e., sampling and analysis that is an integral part of the AK process) to reach a full understanding of their waste. NMED reaffirms that HSG, VE, RTR, and SS (i.e., solid sampling as specified in the Permit) are not EPA SW-846 characterization requirements *per se*; however, these unique characterization requirements that make up the WIPP AK process were imposed in the current Permit for good reason. While some sites (e.g., Rocky Flats Environmental Technology Site [RFETS]) appear to have a good understanding of hazardous waste content based upon documentation, even RFETS has had to occasionally re-evaluate this documentation when the additional AK sampling (e.g., HSG) data are obtained. NMED believes that while sites may in good faith assemble all available AK documentation, information observed to date (including the AK accuracy reports) indicates that acquisition of the additional AK sampling information has led to the

reassessment of existing waste stream content and even the identification of new waste streams not initially identified by AK. Also, while AK accuracy reports to date have indicated varying degrees of success in assembling AK documentation, each site has thus far assembled only its “best” AK information. NMED expects that AK accuracy could be significantly reduced in the future as wastes with less documented information are brought on-line, thus reinforcing the need for a full characterization program as currently mandated in the Permit. Therefore, the Permittees’ complete reliance on AK documentation for required information is not valid. The Permittees must provide a significantly higher standard of adequacy in Attachment B7-2a if AK without confirmation will serve as the generator/storage site’s sole characterization approach.

14. **Management of Drums at WIPP with Inaccurate Waste Characterization.** It is unclear how containers or groups of containers will actually be “handled” if proposed CCF confirmation discovers that the containers or grouping of containers do not “match” the AK information. Currently, these errant containers are segregated at the generator/storage site and await reassignment to different waste streams. That is, these containers with *inaccurate AK information* remain at the generator/storage site under the current Permit. If containers are shipped to WIPP for confirmation, and confirmation reveals inaccurate AK, containers will have *already* been shipped to WIPP that were *inaccurately* characterized by the generator. The Permittees must specifically address this probability and state how/ why they can accept waste for storage that is inaccurately characterized. Will it be immediately shipped back to the generator/storage site (this appears unlikely)? Will it be retained indefinitely (or for the allowable storage time) until “accurate” information and the appropriate WSPF is obtained? What is the probability that host states will resist the transport of inaccurately characterized waste back to the generator/storage site in their state? Regardless, WIPP would have accepted inaccurately characterized waste for storage, a process that cannot occur under the current program. Furthermore, the generator/storage sites could be in violation of 40 CFR §262.11(c), as EPA Region 6 noted in their comment number 4 on the permit modification request.
15. **Attachment B7.** Provision of CCP/ CCF activities in a separate attachment is appropriate, but it would have been clearer if all sections had been prepared the same. Either reference existing sections consistently, or include sections in Attachment B7.
16. **Questions Regarding Specific Changes to Proposed Permit Language and Questions Pertaining to Existing Language in Light of the Permit**

Modification Request. The requested individual permit modifications raise numerous questions and concerns, such as the impact these changes would have on the existing characterization program. These include but are not limited to:

- Module II.C.3 (page A-10 of the modification request) indicates that prior to accepting waste, the Permittees shall ensure that there is “documented evidence that each container of waste” meets the waste acceptance criteria regarding prohibited items prior to disposal, but that waste can and will be accepted that contains prohibited items. The Permittees’ modifications do not adequately describe how the acceptance of prohibited items will be prevented given that this part of the characterization process is not performed until the waste is received at the WIPP. Furthermore, the modifications do not recognize that receipt of prohibited items would still be a violation of the Permit.
- Many of the permit modification requests change the Permit in a manner that is not associated with the underlying request to conduct “confirmation” at the WIPP site for certain SQS. These changes exceed the current scope of the permit modification request, and the Permittees must re-examine the requested language to ensure that Permit requirements remain unchanged when complete characterization (including sampling and analysis) occurs at the waste generator/storage site. For example, item e.3 revises the Permit to state that before *disposing* of a container, the Permittees shall ensure through audit that specific activities have been performed; however, for sites performing complete characterization, the original Permit requirement that these determinations must be made prior to *acceptance* of waste at WIPP should be retained. The Permittees must examine *each* proposed change, including figures and tables, to ensure that the modifications are directly applicable to scope of the permit modification request and will not alter existing requirements for those wastes that would not be confirmed at the CCF.
- In Module I.D, characterization is defined to *include* sampling and analysis, activities that are elsewhere defined as confirmation.
- The definition of waste confirmation includes an erroneous statement regarding HSG. As pointed out in Comment 1, NMED believes that adequate characterization – including the confirmation aspect of AK data collection – must be obtained prior to storage and disposal, as is currently required by the Permit. The Permittees claim that the revision simply

shifts where activities will be performed, but the actual implementation of this request would allow waste that has not been characterized in accordance with the WAP to be stored at the WIPP.

- In Module II.C.1.a-d, the Permittees state that waste confirmation shall occur prior to disposal; indicate how this change will allow any waste to be “characterized” via AK documentation alone, then transported to any “confirmation” site prior to disposal, or just to WIPP.
- Item e.1, Attachment B: The permit modification request must clearly indicate how the WSPF process would work, and when the form is completed.
- Item e.3, Attachment B-1c: Explain what is meant by “documented evidence.” Indicate the standard by which this evidence is determined to be satisfactory.
- The permit modification requests change not only the implementation of specific requirements, but also the purpose and meaning behind various Permit requirements. For example, Item f.2 Attachment B-3 states that the Permittees propose revision of the Permit to indicate that sampling and analysis is “supplemental” information rather than mandatory, as currently required in the Permit. The Permittees state that all information must still be acquired prior to disposal even if the location where the sampling information is obtained is changed, so the demotion of the sampling/analysis phase to a supplemental rather than mandatory status is confusing and could be construed as an attempt to diminish its importance.
- Item f.6, Attachment B-3d(2): The permit modification request would apparently remove the option of allowing sites to perform VE instead of RTR of retrievably stored waste.
- Item f.13, Attachment B-4b(1): The Permittees propose to remove the requirement that the Permittees check WSPF information against HSG, RTR, VE, and SS data to ensure accuracy of the WSPF. This clause was specifically included in the original Permit to ensure that the Permittees take the step to check the WSPF to ensure accuracy; this step is not repeated with each container but is only done with the submission of each new WSPF. Removal of this requirement affects the entire Permit.

- Items h.7 – h.10, Attachment B3-10: The permit modification requests allow the QA Officer, Site Project QA Officer, and Site Project Manager signature releases to occur prior to disposal for all waste, not just that being confirmed at WIPP. That is, sites with certified programs could ship waste to WIPP without signature release, as long as those signatures were obtained prior to disposal. Sites that continue to perform complete characterization must still be required to provide signature releases prior to shipment.
- The Permittees apparently commit to performing on-site (i.e., at the generator/storage site) characterization, including HSG, VE, and RTR for those wastes with insufficient AK. Note that the Permit already requires sites to perform VE of wastes with insufficient AK. However, it is unclear whether the data evaluation requirements, data validation/verification, reporting, and other relevant requirements apply to this “additional” data that might be collected. Acquisition, disposition, management and other aspects of this characterization data must be clarified.
- Item h.15, Attachment B3-13: The permit modification request would require “confirmation sites” to remedy nonconformances prior to disposal rather than prior to waste acceptance. However, this change would apply to all waste (not just that “confirmed” at the CCF), such that waste could be shipped to WIPP and “held” until a nonconformance is remedied. This is inconsistent with the intent of the Permit, which requires remedy of nonconformances before wastes are shipped from a generator/storage site.
- Item i.2, Attachment B4-3d: Contrary to the proposed revision, it is not possible for a generator/store site to segregate an errant container identified through “confirmation” when that container has already left the generator/storage site. Disposition and management of these containers is a question that is not adequately addressed in the permit modification request (See Comment 14).
- Item i.4, Attachment B4-4: This section originally referred to a separate activity performed at WIPP after full characterization (i.e., AK, HSG, RTR/VE) has been performed. As revised, performance of this final “confirmation” is confusing with respect to who will provide information to the Permittees (i.e., the CCP should provide data to the Permittees, but this is not specified). Also, the statement “Any container with unresolved discrepancies associated with hazardous waste characterization will not be

managed, stored, or disposed of at the WIPP facility until the discrepancy is resolved” cannot be implemented, because the subject container will already be in storage at the WIPP. Attachment B4-4 also indicates that any container with discrepancies in the hazardous waste characterization will not be managed, stored, or disposed. The CCP would be managing wastes with unresolved discrepancies under the terms of the permit modification. The Permittees must provide further explanation and procedural details to demonstrate how they intend to meet the conditions of the Permit while actively managing wastes with unresolved discrepancies.

- In Attachment B (page A-12 of the permit modification request), the responsibility for completing the Characterization Information Summary (CIS) is not defined. Under the current Permit, the generator/storage site would be responsible for completing the CIS. Based on the permit modification request, in which the final characterization of waste would be completed at the CCF, it is unclear if the CCP or the generator/storage site would prepare the CIS.
- Attachment B7-2b(iv) identifies procedures undertaken by the Permittees in the event a discrepancy with AK is found during the additional characterization steps. There are no provisions in this section for notifying the generator/storage site or CCP who performed the “characterization” of the discrepancy. The generator/storage sites must be notified to allow them to investigate the discrepancy and make any changes to waste stream assignments or hazardous waste code assignments. The Permittees must provide further detail on how generator/storage sites will be notified of AK vs. VE/RTR/HSG discrepancies found during final characterization performed at the CCF.
- Attachment B7-2a(ii) states that each site is required to comply, at a minimum, with the following acceptable knowledge requirements:
 - Procedures for confirming AK information through HSG sampling and analysis, VE and/or RTR
 - Procedures describing management controls used to ensure prohibited items are documented and managed
 - Procedures to ensure RTR and VE include a list of prohibited items that the operator shall verify...
 - Procedures for newly generated waste shall describe how acceptable knowledge is confirmed using VE.

These requirements all appear to indicate that the generator/storage sites are required to perform all characterization activities as is specified in the current Permit. The Permittees must clarify the intent of these requirements and how they are related to the permit modification request.

17. **B6 Checklist.** The checklists must accurately reflect the permit modification requests. NMED suggests that the Permittees review and revise the checklist in light of comments provided by NMED and the public.
18. **AK Summary Package.** The Permittees indicate that NMED approval of the AK Summary Package will be sought, but Attachment B7-1b states that the AK Summary Package will only be provided to NMED for review.
19. **CCP Use of Generator/Storage Site Personnel.** Attachment B7-2 indicates that the CCP “may” use site personnel, but NMED remains unconvinced that a comprehensive AK package can be assembled without the input from generator/storage site personnel with respect to identification of AK records, process information, AK discrepancy resolution, etc.
20. **Changes to Permit as Reflected in Attachment B7.** Note that while Attachment B7 reiterates portions of Attachments B and B1-B6, it does not exactly replicate requirements from these sections. For example, Attachment B7-2a includes the statement that only the first generator storage site undergoing the CCP shall be audited rather than each site at which the CCP shall be used.
21. **Supplemental Information as Presented in Attachment B7.** It is unclear whether the supplemental information obtained to support waste with unacceptable AK includes that data presented in Attachment B7-2a(iii), or whether it includes RTR, VE, or HSG data as well. It is suggested that if the Permittees intend to collect RTR, VE, HSG, or other data to acquire the necessary information, this be spelled out and the Permit be changed to state: B7-2a(iii) Supporting Acceptable Knowledge Information. Also, Figures B7-1 through B7-4 should address CCP activities only (i.e., debris waste).
22. **National Security.** Based on comments made by several citizens, the prudence of placing large numbers of TRU mixed waste drums in an open area is questionable, given the current need for heightened levels of security for nuclear materials. 40 CFR §270.42(c)(1)(iv) indicates that the suitability of a facility location can be considered at the time of a permit modification if new information

that was not known at the time of Permit issuance indicates a threat to human health or environment. Given the significant increase in mixed TRU waste storage at WIPP, the Permittees should provide additional information as to how this waste will be safeguarded.

23. **Scope of the Modification.** Although the Permittees claim that the CCF will only be used to characterize S5000 debris waste, the modified Permit text does not clearly make this distinction. For example, Attachment B-3d and Figure B-3 indicate that the Permittees will perform solid sampling on S3000 and S4000 wastes at the CCF, but Attachment B7 provides characterization for only debris waste. The proposed Permit text modifications appear to be worded so that minimal modification would be required in the future to allow characterization of S3000 and S4000 waste (addition of solid sampling). This is apparently done to facilitate future permit modification requests for S3000 and S4000 wastes. The most direct evidence of this is found in Figure B-3 in which characterization of all wastes will be completed after the wastes have been sent to the CCF. The Permittees must clarify what waste summary categories will be shipped for characterization at the CCF, and correctly modify the Permit to reflect the actual intended use of the facility. Also, the scope of the permit modification request must be clarified because NMED assumes that the request applies only to retrievably stored debris waste in 55-gallon containers.

NMED notes that the permit modification request often makes changes that impact existing characterization processes covered under the Permit, which the Permittees assert will remain unchanged. The changing of a single word (e.g., addition of “characterization”, etc.) can have very broad ramifications with respect to the program in its entirety. The permit modification request includes several examples where changes to Permit language apparently made to accommodate the CCP/ CCF directly impact and change the existing program for LQS who do their own “confirmation.” Therefore, the scope of the permit modification request is often broad reaching, implementing changes to existing programs that it may not have intended to change. NMED recommends that any revised CCF permit modification request attempt to make no changes to the existing program, and somehow focus the changes to a single attachment so that the CCP/ CCF requirements are distinguishable from existing Permit requirements.

24. **Receipt of Remote Handled, Low Level, and Non-Mixed Hazardous Waste.** Figure B-3 of the permit modification also indicates that Non Destructive Assay (NDA) of waste containers will occur at the CCF. While assay is certainly not a

Permit consideration, assurance that remote handled (**RH**) and low level (**LL**) waste is not being accepted *is* a Permit issue. Therefore, it is unclear to NMED how the Permittees will ensure that RH and LL wastes are not being sent to WIPP, as well as non-mixed hazardous waste. NMED recognizes that EPA has purview over this aspect to waste characterization, and seeks assurances from both the Permittees and EPA that AK, without any supporting assay, will be sufficient to ensure that LL, RH, and non-mixed hazardous waste will not be accepted. Also, the Permittees must provide plans for the possibility that RH, LL, and non-mixed hazardous waste will be accepted at WIPP. The Permittees must provide detailed plans to ensure that said waste drums are not accepted at the WIPP and provide specific contingency plans for appropriate disposition of this waste in the event a prohibited waste drum is received. Finally, the modification should recognize that receipt of prohibited items would still be a violation of the Permit.

25. **Record Storage and Unannounced Audits.** Attachment B-4a(7) indicates that waste characterization records may be stored at either the Permittees' facility or the generator/storage site, implying that records for a particular waste stream may be found at multiple facilities. This approach would seriously restrict the Permittees' auditors and NMED observers from conducting audits. In addition, it is unclear how the Permittees intend to complete the characterization process if all of the characterization records are not available to the Permittees. This revision also indicates that the Permittees may perform unannounced audits of sites that perform characterization activities. Assuming that the CCF is one of those facilities, it seems highly unlikely that the Permittees can perform an unannounced audit of themselves. Provide additional clarification regarding the scope of unannounced audits and scheduled audits.

26. **CIS and WSPF Questions.** Attachment B-4b(1) of the Permit currently requires the WSPF and CIS to be provided to NMED prior to shipment of a waste stream to the WIPP facility. The permit modification indicates that the CIS will be provided only prior to disposal, thus reducing NMED's ability to assess waste prior to shipment. Under the current Permit, NMED has access to information to determine whether unacceptable waste is being accepted at WIPP, but under the permit modification request, NMED has no recourse if improperly or poorly characterized drums are accepted. Because the time between issuance of the CIS and disposal of drums is not identified, is it possible that waste could be disposed of before NMED had a reasonable time to review the CIS. In addition, the proposed text modification is vague because it does not indicate whether the CIS is provided to NMED prior to the initiation of disposal or the completion of

disposal. This distinction is critical for waste streams with large numbers of containers. The Permittees must clarify their intent regarding the timing of the issuance of the CIS. Also, the Permittees must specify how they intend to maintain current and correct information in the WIPP Waste Information System (WWIS) and to provide feedback to the generator/storage sites to update AK information.

27. **Phase I Review.** The revision to Attachment B-4b(1) indicates that waste will not be disposed of if discrepancies arise during the Phase I Review. The current intent of the Phase I review is to have the Permittees verify the characterization information through review of the WSPF and the CIS and that wastes will not be accepted at the WIPP until all discrepancies are resolved. Under the permit modification request, the Permittees will receive waste partially characterized only by AK and characterization will be completed at the CCF, so waste with discrepancies could indeed be accepted at the WIPP facility. The proposed Permit revision does not clearly state how containers with unresolvable discrepancies will be managed.
28. **Changes to the VE Requirements.** As worded, proposed revisions to Attachment B1-3b(3) could be interpreted to allow statistical sampling of drums for VE for AK confirmation, rather than the 100% VE if it is used in lieu of RTR. Sites therefore might believe it allowable to perform only limited VE in lieu of RTR. The current Permit also indicates that the statistical sampling of VE is to verify the RTR process and not AK. The permit modification request greatly reduces the number of drums that will subject to an examination of contents. If the Permittees actually intended to revise the VE process by this modification, then several questions arise, including but not limited to: applicability of the modification to sites other than those characterized via the CCP; how the statistical sample of drums would be determined; how the Permittees would determine the appropriate sample population for each waste stream from a site.
29. **Data Validation and Verification Questions.** Several questions arise pertaining to data validation and verification with respect to CCP/ CCF characterization activities. These include but are not limited to:
- Attachment B3-10a(1) addresses requirements for independent technical review (ITR) of characterization batch data reports. The modified Permit indicates that ITR must be completed before any waste is stored, managed, or disposed at the WIPP. Based upon previous assertions in the modification that the only characterization that will occur before

acceptance of waste by the Permittees is AK if waste is “confirmed” at WIPP, there would be no batch data reports on which to perform ITR prior to acceptance of waste at the WIPP facility. The Permittees must clarify the ITR requirements under the Permit and indicate what activities must be subject to ITR prior to acceptance of waste at the WIPP facility.

- Attachment B3-10a and b provide requirements for characterization data validation and verification reviews. However, the permit modification request is unclear as to what organization will perform each review. The Permittees must clarify the organization that will perform each type of batch data report reviews, from ITR to Site Project Manager with respect to the CCF.
- Attachment B3-10b(4) indicates that the Permittees may request a Waste Stream Characterization Package from the generator/storage site. However, under the permit modification requests, the generator storage sites would no longer generate the information typically included in this submittal if the CCP/ CCF is used. Because the Permittees would be performing the HSG and RTR/VE, as well as SS (for appropriate summary material codes), the Permittees themselves would be responsible for preparing the Waste Stream Characterization Package. The Permittees must clarify the organizational responsibility for preparing the Waste Stream Characterization Package.
- Attachment B3-11 provides criteria for reconciliation of project level data quality objectives. Performance of characterization activities at the CCF facility presents many logistical challenges to the proper determination and evaluation of Data Quality Objectives (**DQOs**). These include but are not limited to:
 - Random samples for VE confirmation of RTR, SS, and HSG for selected waste streams could not be collected until all drums for a waste stream are at the Permittees’ CCF and eligible for selection.
 - Drums could not be disposed of until the selected samples were collected and analyzed. This means that drums must remain in open above-ground storage until all drums associated with the waste stream have been made available to the Permittees for random sampling. For larger waste streams this could easily result

in exceedance of the one-year storage limit identified in this permit modification.

- The presence of tentatively identified compounds (**TICs**) and the addition of TICs to target lists based upon detection in 25% of the drums would require drums to be retained in surface storage until the analysis is completed in the event additional drum sampling must occur.
- The modification indicates that the Site Project Manager would be responsible for signing off on the adequacy of the characterization process and the results of the process. It is unclear if this individual is the generator/storage site or the CCP.

Item 2 – Additional Storage Capacity and Additional Container Storage Locations

30. **Limitation of the Modification Request.** This proposed Class 3 modification increases the current storage capacity in the Waste Handling Building (**WHB**) Unit. According to the Permittees, the increased capacity is necessary to allow the WIPP site the ability to “conduct confirmation” analyses prior to disposal at the WIPP site. The actual increase in storage capacity consists of four areas, including 1) the currently permitted area, which would increase to 5,386.25 ft³ (a capacity increase of 1,077.25 ft³); 2) Rooms 108 and 112, which would constitute an additional 11,100 ft² of storage space; and 3) the West Central storage area of the CH Bay for an additional 750 ft² of storage space. However, since the modification is based on the premise that the additional capacity and storage space is only necessary to perform “confirmation” at the WIPP site, if Item I of this modification package is not approved, then the need for the approval of Item 2 of this modification becomes unnecessary.
31. **Permitting of Waste Storage Areas.** As part of the public comments submitted to NMED, the Permittees submitted a revised Record of Decision (**ROD**) entitled “Approval of Revised ROD for Treatment and Storage of TRU Waste Prepared Under the WM PEIS (EMCTS #: EM2000-03558)”, Attachment 2. Contained in the ROD on pages 6 and 11 are statements that “Non-intrusive disposal characterization activities, such as radiography and radio assay, will be located inside the TRUPACT Maintenance Facility adjacent to the Waste Handling Building.” The Permittees need to be aware that this unit will require permitting

for storage of any containers for a length of time greater than 24 hours. Because the waste being processed and stored in this location is from off-site sources, the less-than-90-day generator storage area requirement contained in 40 CFR §262.34, and the satellite accumulation requirements contained in 40 CFR §262 Subpart C do not apply. Therefore, any storage in excess of 24 hours will require that the area be permitted. The Permittees did not provide any information on this unit. The permit modification request should have included a description of the unit design, a drawing of the container storage locations showing the configuration of containers stored in this area, and information on the secondary containment system, including calculations. The total number of containers to be stored should have been included. Storage of waste cannot occur in this location until such time as the Permittees have obtained a permit modification for this activity.

32. **Table III.A.1.** This table, which provides information on the storage areas and the maximum capacity, is confusing and difficult to follow. It appears that the Permittees are requesting unprecedented “operational flexibility for storing waste within the WHB Unit” (page A-90). The permit modification request fails to clearly indicate that the sum of the maximum storage in all areas cannot exceed the maximum permitted capacity for the unit as a whole. The use of the phrase “total design storage capacity” (see Table I, page A-92) implies that the Permittees are requesting this additional capacity, because the sum of the maximum capacity in all storage areas on this Table equals this amount. The Permittees must provide a clear and concise request stating the overall capacity required, and then limit the total maximum capacity required in all storage areas to the total permitted capacity requested (i.e., 3,795.25 ft³). Any request for a total permitted capacity less than the total design storage capacity must be fully justified and documented (e.g., time and motion studies, etc.). Alternately, the total permitted capacity should be increased to the design storage capacity, allowing the requested maximum capacity in each storage area to remain unchanged from the values presented in the permit modification request.

The Permittees should eliminate footnote b on Table III.A.1, because justification of the permit modification request does not belong in the modified permit language itself.

The table references a total drum capacity of 516 drum-equivalents in footnote (b) of Table III.A.1. However, it is not possible to determine how this number of drum equivalents was calculated since this number does not correlate to column 4 of Table III.A.1 or Table I on page A-92. In addition, the modification did not

include figures or diagrams, showing a floor plan that clearly diagrams the location and configuration of the containers in the container storage areas. These figures should be based on actual types of containers expected at the WIPP site. NMED understands that some variations in the exact type of container (drum, standard waste box, etc.) may be necessary based on the type of container received at the facility; however, information on the number and types of waste containers stored in each area, including a diagram, is necessary in order to determine the secondary containment capacity of each area.

33. **Item a.3, Module III.A.1.C** Throughout the modification, the Permittees use a new term: “containment” pallets. The Permittees do not provide any information on these “containment” pallets other than that indicated in Section d.2 Attachment E-2a, which states that the containment pallets are “constructed of polyethylene and have a rated load capacity of 6,000 lbs.” A more detailed description of the pallet design, containment capacity, and material of construction should have been included. NMED notes that facility pallets, which are the other type of pallet used at WIPP, are fully described in Permit Attachment M1 (Section M1-1c(1)), and the Permittees also provided a figure (Figure M1-10) for the facility pallet.
34. **Item d.2, Attachment E-2a.** The eight-drum configuration of the drums on the containment pallets must be provided. Also, indicate how all drums will be inspected.
35. **Item d.3, Attachment E-2b.** The Permittees must describe how containers with “confirmed” waste and containers that have only been partially “characterized” will be managed so that both types of containers are not stored in the same location, and provide management procedures which ensure that “unconfirmed” waste will not accidentally be transferred to the disposal facility. Also, see Comments 36, 38, 39, and 40 with regard to the 10% containment capacity used to determine the secondary containments.
36. **Item g.1, Attachment M1-1a.** The Permittees based the calculations for “unconfirmed” waste on a “ten percent of ten percent of the volume of all the containers, or ten percent of the capacity of the largest single container, whichever is greater.” There is no justification for using the 10% of 10% number specified by the Permittees, particularly because this waste may not have been totally characterized or “confirmed.” For unconfirmed waste, the Permittees must meet the RCRA regulatory requirements specified in 40 CFR §264.175(b)(3) which states, “The containment system must have sufficient capacity to contain

10% of the volume of containers or the volume of the largest container, whichever is greater.”

37. **Item g.2, Attachment M1-1c(1).** (See Comment g.1.) There is no indication how “confirmed” and “non-confirmed” waste will be separated. Paragraph 3 of this section indicates that an area has also been designated for temporary storage of waste containers for which manifest discrepancies were noted after the shipping containers were opened. There is the potential that prohibited waste may be observed in the drum which could include the presence of incompatible, reactive, or ignitable waste materials in the container. Such observations could indicate that incompatible waste containers could be stored in proximity of each other. The modification should have discussed segregation of containers that may contain incompatible waste, as well as procedures for ensuring that incompatible, reactive, or ignitable wastes are not stored in the same containers. The permit modification request should also have indicated that if manifest discrepancies were noted, the presence of prohibited items would be checked.
38. **Item g.5, Attachment M1-1f(1).** Section M1-1f(1) of the Permit specifies the secondary containment requirement for the WHB Unit. The Permittees provide maximum volumes of TRU mixed waste that will be stored in the NE Storage Area and the Shielded Storage Area for “confirmed” waste, but provide no documentation of the amount of waste which could physically be stored in the location. Likewise, the Permittees do not indicate, as part of the information provided, the size of the area that would be used as the secondary containment. As a result, it is not possible to independently determine whether, in each case (i.e., NE Storage Area and the Shielded Storage Area), the “largest single container” used to calculate the secondary containment volume for these areas was performed in accordance with 40 CFR §264.175.

The Section further indicates that for “unconfirmed” waste, the maximum volume for secondary containment is 4.4 gallons. There are several issues associated with this calculation. First, it is not clear if this secondary containment calculation for “unconfirmed” waste applies to only the Shielded Storage Area, the NE Storage Area, or to both areas. In addition, as was previously stated in Comment 37, the Permittees have not provided sufficient justification for utilizing the secondary containment capacity of 10% of 10% of the volume of all containers or 10% of the capacity of the largest single container. As previously stated, because the waste being accepted at the site is unconfirmed and there is the potential that liquids could be contained in the waste, the Permittees should meet the minimum requirements contained in 40 CFR §264.175(b)(5) which states, “The containment

system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater.”

Finally, note that the direct loading of ten drum overpacks (TDOPs) has not yet been approved. Secondary containment calculations must be based either on the approved Permit or changes specified in the permit modification request.

39. **Item g.6, Attachment B1-1f(2).** The calculations provided in g.6 are based only on “confirmed” waste being stored in these areas. However, the information in Section g.5 indicates that “unconfirmed” waste may be stored in these areas as well. The Permittees should recalculate the secondary containment area based on the storage of waste that has not been fully characterized (not “confirmed” waste) and, as stated before, the requirements for calculating such containment should be based on the regulations contained in 40 CFR §264.175(b)(3), unless the Permittees can provide documentation of the 10% liquid volume. Such documentation would include such information as analytical data. Alternately, the Permittees could clarify that containment pallets would provide sufficient secondary containment for unconfirmed waste containers.
 40. **Item g.8, Figure M1-1.** Figure M1-1 does not provide the dimensions of each container storage area. This figure should also present the proposed container configurations in each of the storage areas. It should also be noted that the modification did not include a photograph in Attachment B of rooms 108 and 112, as would be required in the modified Part A and facility description. There is no legend associated with this figure.
 41. **Item g.11, Figure M1-15.** Figure M1-15 should include a legend, the dimensions of each room, and the proposed container configurations. Also, according to Figure G-4, containers appear to be transported through the WC Storage Area shown in Figure M1-15 where a large number of drums will be stored. If this is the case, container transport through the WC Storage Area could pose an accident hazard. It is unclear, based upon the information provided, whether this is the actual transportation route or if the transportation route avoids this area.
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Item 3 – Increase in Storage Time

42. **Item a.1 Module III.A.1e.** The modification indicates that the one year calendar time frame should include all waste stored at the WIPP site. The facility is

presently able to meet the 60-day storage time for what would be considered “confirmed” waste, thus it is only necessary to extend the storage time to one calendar year for “unconfirmed” waste.

Item 4 – Prohibited Items

43. **Non-Hazardous Waste Determination.** In the narrative discussion on page A-103, the Permittees indicate that “nonhazardous liquids may be absorbed for disposal at the WIPP” site. The Permittees do not discuss, in either in the narrative or in the permit modification request, how a non-hazardous waste determination will be made. There is no indication that testing will be performed to make this determination.
44. **Absorbing Liquid in Waste Containers.** The Permittees indicate that nonhazardous liquid may be absorbed for disposal at the WIPP site. Specifically, TRU waste and hazardous liquids may be absorbed at the point of repackaging and the residual disposed of at the WIPP site. The Permittees contend that the addition of liquids to the containers or the removal of the liquids from the container and subsequent addition of absorbent does not constitute treatment. However, EPA guidance dated July 1990, which is a more recent directive than is referenced by the Permittees, indicates that such activities occurring at the WIPP site would be an activity requiring a Permit for treatment. That July 1990 guidance (available from RCRA Online as document 9453.1990(02)) states as follows:

“Adding Absorbent to Waste Containers

“40 CFR Sections 264.1(g)(10) and 265.1(c)(13) exempt the following activity from permitting requirements: “(t)he addition of absorbent material in a container...or the addition of waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and sections 264.17(b), 264.171, and 264.172 are complied with.” To qualify for this exemption, must a generator add absorbent to his waste the first time the waste is containerized, or may he treat or store the waste in other units before performing absorption in a specified container?”

“This exemption applies solely to the activity of adding absorbent to waste in a specific container. Treating or storing the waste in other tanks or containers before absorbent is added would not cause a generator to lose this exemption. Such treatment or storage, however, is not included in the exemption, and therefore must either be permitted activity or conform to the generator accumulation requirements of 40 CFR Section 262.34. According to 51 FR 10168: “(n)othing in Section 262.34 precludes a generator from treating waste when it is in an accumulation tank or container covered by that provision.” Therefore, a generator following all applicable requirements of Section 262.34 could treat his waste in one container before adding absorbent in another.”

The permit modification request should have included treatment for the proposed activities, because this exemption from permitting applies only to the *generator* of the waste when they place the absorbed material into the container at the time the waste is first placed into the container. The exemption does not apply to TSDFs that are treating waste accepted from generator/storage sites. Based on this EPA guidance, it is NMED’s position that such action of adding absorbent material to the waste containers, or removal of the liquids from the container and the subsequent addition of absorbent material, constitutes treatment at the WIPP site and therefore requires a Permit.

45. **Item a.3, Attachment F-1 General Information.** The Permittees state that when a prohibited item is discovered, NMED will be notified within 10 days of the date of discovery. This notification period of 10 days is lengthy. NMED would require verbal notification within 24 hours and written notification within 5 calendar days, consistent with Permit Condition I.E.13.
46. **Item a.4, Attachment F-4a Notification.** Since the permit modification request was submitted, NMED has since moved to a new location with new phone numbers and this information contained in the modification are incorrect. The revised permit modification should be updated to include this information.
47. **Item a.5, Attachment F-4d Control, Containment and Correction of the Emergency.** On page A-111 under the Compressed Gases section, the third paragraph indicates that, “...the cylinder will be removed in the glove box and then *assayed* to determine if ...” The permit modification does not indicate what is involved in this “assay” or what types of tests will be performed.

52. **Unvented, Unsampled Containers Greater than 4 Liters.** The modification implies that containers could be vented without sampling. The Permittees state that, “The container will be removed and sampled or vented.” This could lead to a dangerous situation, wherein an unknown gas could require management if sampling is not performed. State under what condition unvented containers will or will not be sampled prior to venting.
53. **Table F-10 (page A-112).** There are several issues associated with Table F-10. The table does not indicate, under the management column, that liquids will be sampled and analyzed before and after solidification. The compressed gas column addresses only the punching of aerosol can; the column does not address how cylinders and other compressed gas containers will be handled. There is also no indication whether unvented containers greater than 4 liters will be sampled upon venting.