

**Notice of RCRA Class 1 Permit Modification
in Accordance with 20.4.1.900 NMAC
(incorporating 40 CFR Part 270)**

**Waste Isolation Pilot Plant
Carlsbad, New Mexico**

July 21, 2000

**Notice of RCRA Class 1 Permit Modification
in Accordance with 20.4.1.900 NMAC (incorporating 40 CFR Part 270)**

Consistent with requirements of 20.4.1.900 New Mexico Administrative Code (NMAC) (Hereafter referred to as Part 270 or Section 270.XX) the U. S. Department of Energy, Carlsbad Area Office is submitting to the New Mexico Environment Department (NMED) notice of a Class 1 modification to the Hazardous Waste Facility Permit (NM4890139088–TSDf) for the Waste Isolation Pilot Plant (WIPP). Specifically, this information is provided to comply with the requirements of Section 270.42(a)(1).

The modification is listed in Table 1. Listed information includes a reference to the applicable section of the permit, a brief description of the item, and the class of the item, as identified in Appendix I to Section 270.42. The relevant permit modification category, as identified in Appendix I, is provided as well. A more complete description of the Class 1 modification is provided in Attachment A.

The identified changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment and the modified permit is no less stringent than the current permit.

Table 1. Class 1 Hazardous Waste Facility Permit Modification

No.	Affected Permit Section	Item	Category	Attachment 1 Page #
1	a. B b. B1 c. B3 d. B4 e. B6	Revise Permit attachment text that establishes reporting requirements to eliminate inconsistencies and reporting overlap, and to clarify requirements.	A.1	A-1

Item 1

Description:

This modification of the WIPP Hazardous Waste Facility Permit (HWFP) clarifies the data management and reporting requirements of the Waste Analysis Plan (WAP) and eliminates inconsistencies and redundant reporting.

Basis:

To comply with the Permit requirements, data review, validation and verification is to occur at three levels: 1) the data generation level; 2) the project level; 3) and the Permittee level. The reporting of information at each of these levels must be accurate and consistent. The changes made with this modification will ensure that data management and reporting requirements, as well as the elements of each report, are clear to those responsible for implementing Permit requirements. The changes clarify the reports required, the contents of the reports, and who is responsible for generating and submitting them. Since the Permit affects a large number of generator/storage sites, the implementation of this data management and reporting modification may be incorporated by the generator/storage sites in a phased approach. The generator/storage sites may continue to follow the data management and reporting requirements defined by the HWFP issued on October 27, 1999 and modified through June 21, 2000 until November 1, 2000. All generator/storage sites will implement the data management and data reporting requirements delineated by this modification no later than November 1, 2000.

The changes made by this modification include:

1. Retaining raw data at the analytical facility or in the site project files; submitting it only when requested by the site project office or the Permittees. Optionally, sites may submit these data if they desire. This means that raw data is not necessarily submitted with the Batch Data Reports;
2. Defining the Characterization Information Summary as the required Waste Stream Profile Form summary report and eliminating references to similar reports with other titles throughout the Waste Analysis Plan;
3. Consolidating reporting requirements that are repeated throughout the Permit;
4. Removing detailed discussions on report elements and data review, validation, and verification requirements from Attachment B, and relocating them to the appropriate Section of Attachment B3 which contains specific detail; and
5. Providing, consistent with the Permit, the minimum reporting elements for Batch Data Reports, Waste Stream Profile Form and its summary report called the Characterization Information Summary, and Waste Characterization Data Package (if requested by the Permittees).

Attachment B3 has been revised to clearly identify: 1) the reports required at each reporting level; 2) a list of the information required in each report; and 3) the

organizations or individuals responsible for generating, reviewing, validating and verifying the appropriate data and/or reports. These changes are administrative in that they rearrange portions of the Permit and establish titles and contents for reports to assure that the Permit is internally consistent and that the requirements are understandable. Because of this, these changes are Class 1 modifications under Section A.1 of Appendix I in 20.4.1.900 NMAC (incorporating 40 CFR 270.42).

Discussion:

The Permit currently describes reporting requirements in Attachments B and B3. It is critical that generator/storage sites report data to the Permittees accurately and consistently to demonstrate compliance with Permit requirements. The current text could benefit from clarification to facilitate implementation. For example: Attachments B and B3 contain slightly different report titles for the same report; require review of a report at the data generation level that is not compiled until project level review; define reports inconsistently; and define elements of reports inconsistently across attachments and sections within an attachment. To ensure that reporting requirements are not confusing to those responsible for implementing and auditing the implementation of Permit requirements, Attachments B, B1, B3, B4, and B5 have been changed. The changes clarify the reports that are required, information required in each report, and responsibilities for compiling and reviewing each report. Some descriptive text has been moved to reflect the actual sequence of reporting events.

The changes do not reduce or eliminate any data that the generator/storage site must obtain, review and validate, or report to the Permittees. The changes will enhance the reporting process flow and ensure required data are consistently reported.

The following discussion provides a list of administrative and editorial changes made in this modification. Table 1 provides a more detailed list of changes and the justification for each change. Table 2 provides a summary of the required reports and their contents. Both Tables 1 and 2 are included in Attachment B of this modification.

1. Subsection numbering has been added throughout Sections B3-10, B3-11, and B3-12 to provide consistency with the rest of the Permit.
2. The following reporting requirements have been changed or consolidated into four specific reports:
 - a. Submission of Analytical Raw Data with Batch Data Reports
Analytical raw data no longer must automatically be included with Batch Data Reports sent to the site project office. Sites are given the option of retaining the analytical raw data at the analytical facility or the site project files and submitting it only when requested. Alternatively, sites may elect to attach the analytical raw data to the Batch Data Reports. The volume of printed material generated by analytical software is useful only at the data generation level and to qualified reviewers. In addition, limiting the Batch Data Reports to include only the required information will eliminate the need for both voluminous copying at the data generation level and excessive storage space at the site project office. Sites retain the option to submit analytical raw data if they choose to do so.

b. Data Summary Report (Container Report)
Previously, the description of the data summary report in Section B3-10 was a report containing all testing and analytical results, as well as all associated field and laboratory QC sample results for each container. The volume of paperwork that is generated by this requirement is not necessary to ensure that the data meet all the requirements of the WAP. All testing, sampling, and analytical results are contained in the Batch Data Reports. Any container that has waste outside the criteria is rejected. The need to generate a container report has been replaced with the requirement to maintain a cross reference of container identification numbers to each Batch Data Report. Therefore, the data summary report was functionally combined with the Batch Data Reports. The associated description of data summary report in Section B3-10 was replaced with the description of the Characterization Information Summary and cross reference table in Section B3-12b(1).

c. Data Summary Package & Waste Stream Characterization Summary Package
The requirement from Section B-4a(5) and Section B3-10 for reviewing the “data summary package and waste stream characterization summary package” as part of data validation and verification at the data generation level is moved from the data generation level to the project level because the reports are generated at the site project level, and therefore, not reviewed at the data generation level. These two reports have been renamed Characterization Information Summary and Waste Stream Characterization Package. Project level reporting requirements in Section B3-12 were also modified to list the elements of the Characterization Information Summary and Waste Stream Characterization Package (described in the next section of this document). This revision does not eliminate any substantial requirement.

The requirement from Section B3-10 for validating and verifying the “data summary package and waste stream characterization package” at the project level was revised to refer to Batch Data Reports because the specific batch information required to be validated and verified at the project level is contained in Batch Data Reports.

d. Retaining Samples Until After Completion of Project Level Review
Additional text is added to Section B3-10b(3) that allows the Site Project Manager to decide when a sample no longer needs to be retained. This change allows the Site Project Manager to free up storage space and equipment at the risk of needing to resample should the sample be determined unusable during validation and verification. Sites spend substantial time and money storing old samples. Only the Site Project Manager has sufficient information to know when old samples should be discarded. This change gives sites slightly more flexibility. This change also removes an inconsistency in Attachment B1-4 which is unclear to when and how samples are relinquished.

3. The following inconsistencies have been addressed:
 - a. Multiple Titles for the Same Report
 The WAP is not always clear as to what data must be reported at each level. One example is the use of multiple titles for the same report (e.g., data summary report, waste stream characterization summary report, waste stream characterization summary package, waste stream characterization summary report package, waste stream characterization summary package report). Previously, the WAP included five different titles to the same report. This revision changes the multiple titles to one consistent title -- Characterization Information Summary. This revision eliminates the confusion and possible redundant reporting caused by the inconsistency. The specific elements of the Characterization Information Summary are clearly identified in Section B3-12b(1). Other examples of inconsistencies in report titles are shown in Table 2. Table 2 also reflects the previous report title, the current report title, and the level at which the report is generated.
 - b. Multiple Terms for the Different Levels of Review, Validation, and Verification
 Previously, Attachment B referred to the various levels of data review, validation and verification as either Levels 1, 2, 3 or Levels I, II, III. Attachment B3 referred to the same levels of data review as “data generation level,” “project level,” and “Permittee Level.” Accordingly, all references to Levels 1, 2, 3 and Levels I, II, III are changed to “data generation level”, “project level”, and “Permittee level” respectively. In addition, any references to the “WIPP facility level” is changed to “Permittee level”.
4. The following figures, tables, and reporting elements were added for illustration and clarification:
 - a. Batch Data Report Elements
 The minimum information requirements for Batch Data Reports (testing, sampling, and analytical) were added to Section B3-10 and Tables .
 - b. Reporting Flag Table
 The text from Section B3-10a(1) for reporting flags was moved to a new table (Table B-11).

A Table is provided in Attachment B which contains a complete list of the major changes (by Section), the justification for each change, and a cross-reference to the page number in Attachment A where the redline/strikeout is found.

Revised Permit Text :

- a. 1. Attachment B Table of Contents

B-4 Data Verification and Quality Assurance
 B-4a ~~Levels One and Two Verification~~: Data Generator ~~Generation~~ and Generator/Storage Site-Project Level ~~Verification~~ Requirements
 B-4b ~~Permittee Level Three~~: WIPP ~~Waste~~ Screening and Verification of TRU Mixed Waste

a. 2. Attachment B List of Figures

B-4 — Levels of Data Verification

a. 3. Attachment B Introduction

Once the required waste characterization is complete, the generator/storage site will complete a Waste Stream Profile Form to document the results of their characterization activities (see Section B-1d). The ~~data summary reports, waste stream characterization summary report(s), and Waste Stream Profile Forms~~ and the **Characterization Information Summary for the waste stream** resulting from waste characterization activities shall be transmitted to the Permittees, reviewed for completeness, and screened for acceptance prior to loading any TRU mixed waste into the Transuranic Package Transporter (**TRUPACT-II**) at the generator facility, as described in Section B-4. Only TRU mixed waste and TRU waste that has been characterized in accordance with this WAP and that meets the Treatment, Storage, and Disposal Facility Waste Acceptance Criteria (**TSDF-WAC**) specified in this Permit will be accepted at the WIPP facility for disposal in a permitted Underground Hazardous Waste Disposal Unit (**HWDU**).

In the event the Permittees request detailed information on a waste stream, the site will provide a Waste Stream Characterization Package (Section B3-12b(2)). For each waste stream, this package may include the Waste Stream Profile Form, the AK summary, Batch Data Reports and analytical raw data associated with waste container characterization as requested by the Permittee.

a. 4. Attachment B-1c

Before accepting a container holding TRU mixed waste, the Permittees will ensure, through audit and as part of ~~its Level III analysis~~ **their Permittee-level data reviews (Section B3-10c)**, that generator/storage sites examine the radiography or visual examination data records (~~refer to Section B-4b~~) to verify that the container holds no unvented compressed gas containers and that residual liquid does not exceed 1 percent volume in any payload container. If discrepancies or inconsistencies are detected during the data ~~form~~ review, the generator/storage site will review the radiography video tape or visual examination tape to verify that the observed physical form of the waste is consistent with the waste stream description provided by the generator and to ensure that no prohibited items are present in the waste. Radiography tapes will be selected randomly from at least one percent of containers received at WIPP and will be reviewed and compared to radiographic data forms. All personnel who review radiography video tapes will be trained to the same standard as radiography operators. Section B-4 includes a description of the waste verification process that the Permittees will conduct prior to receiving a shipment at the WIPP facility.

Containers are vented through individual carbon composite particulate filters or filters with equivalent VOC dispersion characteristics, allowing any gases that are generated by radiolytic and microbial processes within a waste container to escape, thereby preventing over pressurization or development of conditions within the container that would lead to the development of ignitable, corrosive, reactive, or other characteristic wastes.

To ensure the integrity of the WIPP facility, waste streams identified to contain incompatible materials or materials incompatible with waste containers cannot be shipped to WIPP unless they are treated to remove the incompatibility. Only those waste streams that are compatible or have been treated to remove incompatibilities will be shipped to WIPP.

~~TSDf-WAC have been developed to limit the~~The VOC concentrations in the headspace of waste containers ~~have been limited~~ to those which, when averaged on a room basis, will ensure compliance with the performance standards. These limits are presented in Table B-2 as maximum allowable VOC room-averaged headspace concentration limits. There are no maximum allowable headspace gas concentration limits for individual containers, as some containers can exceed these values as long as container headspace averages in a disposal room do not.

a. 5. Attachment B-1d

Every waste stream shipped to WIPP shall be ~~accompanied~~~~preceded~~ by a Waste Stream Profile Form (**WSPF**) (Figure B-1). ~~The required WSPF information and the Characterization Information Summary elements are found in Section B3-12b(1).~~, containing the following information:

- ~~€~~ The generator/storage site's name
- ~~€~~ Original generator of waste stream
- ~~€~~ A description of the waste stream
- ~~€~~ The date of TSDf-WAC certification by the Permittees and the certification document title and date
- ~~€~~ The Waste Stream WIPP Identification Number
- ~~€~~ The designated Summary Category Group
- ~~€~~ A listing of acceptable knowledge documentation used to identify the waste stream
- ~~€~~ The waste characterization procedures used and the reference and date of the procedure
- ~~€~~ The data supporting the characterization
- ~~€~~ The EPA hazardous waste codes
- ~~€~~ Waste Stream Profile Form Certification statement signed by the generator/storage site waste project manager

Generator/storage sites will provide the ~~data~~ **Waste Stream Profile Form** to the Permittees for each waste stream prior to its acceptance for disposal at WIPP. The Waste Stream Profile Form ~~data~~ ~~and the Characterization Information Summary~~ will be transmitted to the Permittees for each waste stream from a generator/storage site. If continued waste characterization reveals discrepancies that identify different hazardous waste codes or indicates that the waste belongs to a different waste stream, the waste will be redefined to a separate waste stream and a new Waste Stream Profile Form submitted.

The Permittees are responsible for the review of Waste Stream Profile Forms (~~see Section B-4b and Figure B-1~~**B3-12b(1)**) and ~~data records~~**Characterization Information Summaries** to verify compliance with the restrictions on TRU mixed wastes for WIPP disposal. The Permittees will submit completed Waste Stream Profile Forms to NMED prior to waste stream shipment ~~under the TSDf-WAC~~. The Permittees will also be responsible for the review of shipping records

(see Section B-4b) to verify that each waste container has been prepared and characterized in accordance with applicable provisions of this WAP. Waste characterization data shall confirm the absence of prohibited items specified in Section B-1c.

As stated in the introduction to Attachment B, any time the Permittees request additional information concerning a waste stream, the generator/storage site will provide a Waste Stream Characterization Package (Section B3-12b(2)). The option for the Permittees to request additional information ensures that the waste being offered for disposal is adequately characterized and accurately described on the Waste Stream Profile Form.

a. 6. Attachment B-3

TRU mixed waste may be characterized in lots (Section B-1a) and/or batches. A sampling batch can be up to 20 samples (excluding field QC samples), all of which shall be collected within 14 days of the first sample in the batch. An analytical batch can be up to 20 samples (excluding laboratory QC samples), all of which shall be received by the laboratory within 14 days of the validated time of sample receipt of the first sample in the batch. For on-line integrated headspace gas sampling/analytical systems, samples will be collected and analyzed within a 12-hour period using the same on-line integrated sampling/analysis system. Refer to Permit Attachment B3 for additional clarification regarding the expected contents of Batch Data Reports, data reports and data packages specified in this Permit Attachment.

a. 7. Attachment B-4

The Permittees and the generator/storage sites sending TRU mixed to the WIPP for disposal will assure that waste characterization meets WAP requirements through data validation, usability and reporting controls. Verification steps will be taken occurs at three levels: 1) the data generation level, 2) the generator/storage site project level, and 3) the WIPP facility level. These levels are Permittee level, shown in Figure B-4 and the The validation and verification process and requirements at each level is described in Permit Attachment Section B3-10.

a. 8. Attachment B-4a

B-4a Levels One and Two Verification: Data Generator Generation and Generator/Storage Site Project Level Verification Requirements

a. 9. Attachment B-4a(4)

Batch Data Reports, in a format pre-approved by the Permittees, will be used by each generator/storage site for reporting waste characterization data. This format will be included in the generator/storage site QAPjP, controlled electronic databases, or procedures referenced in the QAPjP (Permit Attachment B5) and will include all of the elements required by this WAP for Batch Data Reports (Permit Attachment B3). The generator/storage site shall prepare batch data reports to meet the requirements of QAPjPs. The Permittees will ensure that all generator/storage site QAPjPs meet the requirements presented in Permit Attachment B5 and are reviewed and approved by the Permittees.

The Permittees shall perform audits of the generator/storage site waste characterization programs, as implemented by the generator/storage site QAPjP, to verify compliance with the WAP, and that generator/storage site sampling, data collection, data validation, and reporting practices, as implemented by the generator/storage site QAPjPs, and the will meet DQOs in this WAP (Permittees' Audit and Surveillance Program, See Permit Attachment B6 for a discussion of the content of the audit program). The primary functions of these audits are to review

~~analytical batch data reports and sampling and testing batch data reports prepared by the generator/storage sites that demonstrate adherence to the requirements of this WAP and assure adherence to the WAP characterization program (refer to Permit Attachment B3-10 for report contents). These audits ensure that implementation of the QAPjPs meet all applicable requirements of this WAP. Section B-4 and Permit Attachment B6 provide additional information on the audits of the generator/storage sites performed by the Permittees. The Permittees shall provide the results of each audit to NMED. If audit results indicate that a generator/storage site is not in compliance with the requirements of this WAP, the Permittees will take appropriate action as specified in (Permit Attachment B6).~~

The Permittees shall further require all analytical laboratories analyzing WIPP waste characterization samples for the generator/storage sites to have established, documented QA/QC programs. The Permittees annually evaluate these laboratories and their QA/QC programs as part of their participation in the Permittees' Performance Demonstration Program (PDP) laboratory performance program. The Permittees' audits cover the requirements of the lab's QA/QC program, as well as compliance with this WAP. Continued compliance with these parameters will be verified by ongoing audits by the Permittees at the generator/storage sites as specified in (Permit Attachment B6). The Permittees' audits of the generator/storage sites will verify that the laboratories analyzing waste have been properly audited by the generator/storage sites. The laboratory's QA/QC program shall include the following:

- c Facility organization
- c A list of equipment/instrumentation
- c Operating procedures
- c Laboratory QA/QC procedures
- c Quality assurance review
- c Laboratory records management

a. 10. Attachment B-4a(5)

Batch Data Reports will document the **testing, sampling, and** analytical results from the required characterization ~~analyses, contain the characterization data activities,~~ and include documentation of required QA/QC activities ~~associated with the sampling and analysis.~~ Data validation and verification at both the data generation level and the ~~generator/storage site~~ project level will be performed **as required by this Permit** before the required data are transmitted to the Permittees (**Permit Attachment B3**). ~~discusses the data validation process in more detail.~~ NMED may request, through the Permittees, copies of any Batch ~~or summary~~ **Data Report**, ~~including and/or~~ raw data validated by the generator/storage sites, to check the Permittees' audit of the validation and verification process.

~~The first level of data verification by the generator/storage site will confirm that the waste characterization data are properly reported for the characterized TRU mixed waste containers that will be shipped to the WIPP. Data review, validation, and verification procedures used by the generator/storage sites are required to ensure that 100 percent of the data reported has received an independent technical review^s to assure that data generation and reduction were conducted in a technically correct manner, calculations have been verified correct, and all variances from accepted analytical methods (appropriate to the waste type being analyzed) have been documented and approved. Batch data reports will be reviewed by generator/storage sites~~

for completeness to verify that they include field sampling records, raw analytical data, calculation records, GOC documentation, calibration records, QA sample results, and that sample holding times and preservation methods were met or exceptions documented. Completed batch data reports shall be signed by the technical supervisor and a QA reviewer. At the Project level of verification (Level 2), 100 percent of the data summary packages and waste stream characterization summary package reports are subject to review to ensure that data usability and DQO criteria are met, that all required reviews have been performed and documented, that review checklists are complete, and that all data are correctly reported (refer to Permit Attachment B3). At the second level of verification the Generator/Storage Site Project Manager and the Generator/Storage Site Data QA Officer will also ensure that a repeat of this review is performed for at least one randomly chosen container quarterly. Finally, if a Batch Data Report is requested by the Permittees, a check for the required Batch Data Report elements will be performed by the Permittees as the third level of verification to assure that Batch Data Reports are complete. Figure B-4 shows the components of each level of data verification. Data verification and requirements are discussed in more detail in Permit Attachment B3.

a. 11. Attachment B-4a(6)

Batch Data Reports will include the information required by Permit Attachment B3-10 and will be transmitted by hard copy and/or electronically (provided a hard copy is available on demand) from the data generation level to the generator/storage site TRU mixed waste characterization project level. Transmitted data will include testing, sampling, and analytical batch data reports and data review checklists. The Permittees will ensure that testing, sampling, and analytical batch data are reported for each waste container and are also input electronically into the WIPP Waste Information System (WWIS). Data will be entered into the WWIS in the exact format required by the database [see Section B-4b for WWIS data requirements and Appendix C13 of the WIPP RCRA Part B Permit Application (DOE, 1997) for the WWIS data dictionary]. Summarized characterization information will also be reported on a waste stream basis and transmitted by hard copy or electronically to the Permittees. Hard copy or electronic waste stream characterization summary packages will include generator/storage site name, program identification, waste container numbers, release signatures from the generator/storage Site Project Manager and Generator/Storage Site Project QA Officer, and a concise narrative summarizing the results of the generator/storage site project level review. Permit Attachment B3 provides the format requirements for generator/storage site hard copy and/or electronic data reports. The report will briefly describe any problems or other observations (e.g., nonconformance reports).

Once a waste stream is fully characterized, the generator/storage Site Project Manager will also submit to the Permittees a Waste Stream Profile Form (Figure B-1) accompanied by the a summary of Characterization Information Summary for that waste stream information which includes and reconciliation with DQOs (Permit Attachment Section B3-12b(1)). This The Waste Stream Profile Form will be used as the basis for acceptance of waste characterization information on TRU mixed wastes to be disposed of at the WIPP.

The generator/storage site will transmit waste container information electronically via the WIPP Waste Information System (WWIS). Data will be entered into the WWIS in the exact format required by the database. See Refer to Section B-4b for WWIS reporting requirements and Appendix C13 of the WIPP RCRA Part B Permit Application (DOE, 1997) the WIPP Waste Information System User's Manual for Use by Shippers/Generators (DOE, 1997) for the WWIS data dictionary fields and format requirements.

a. 12. Attachment B-4a(7)

Records related to waste characterization ~~sampling and analysis~~ activities at the generator/storage sites will be maintained in the testing, sampling, or analytical facility files or generator/storage site project files for those facilities located at generator/storage sites. Contract laboratories will forward testing, sampling, and analytical ~~QA documentation~~ records along with Batch Data Reports, to the generator/storage site project office for inclusion in the generator/storage site's ~~central~~ project files. Raw data obtained by testing, sampling, and analyzing TRU mixed waste in support of this WAP will be identifiable, legible, and provide documentary evidence of quality.

Records inventory and disposition schedule (**RIDS**) or an equivalent system shall be prepared and approved by generator/storage site personnel. All records relevant to an enforcement action under this Permit, regardless of disposition, shall be maintained at the generator/storage site until NMED determines they are no longer needed for enforcement action, and then dispositioned as specified in the approved RIDS. All waste characterization data and related QA/QC records in the generator/storage site project files for TRU mixed waste to be shipped to the WIPP facility are designated as either Lifetime Records or Non-Permanent Records. Records that are designated as Lifetime Records shall be maintained for the life of the waste characterization program at a participating generator/storage site plus six years, then offered to the Permittees for permanent archival of information of these records in the appropriate form, or transferred to the appropriate Federal Records Center (**FRC**). Waste characterization records designated as Non-Permanent Records shall be maintained for ten years from the date of (record) generation and then dispositioned according to their approved RIDS. If a generator/storage site ceases to operate, all records shall be transferred before closeout. Table B-7 provides a listing of records designated as Lifetime Records and Non-Permanent Records.

At ~~Level III~~ **the Permittee level**, all waste characterization data for each TRU mixed waste container transmitted to WIPP shall be maintained by the Permittees for the active life of the WIPP facility plus two years. The active life of the WIPP facility is defined as the period from the initial receipt of TRU mixed waste at the facility until NMED receives certification of final closure of the facility. After their active life, the records shall be retired to the FRC and maintained for 30 years. These records will then be offered to the National Archives. However, this disposition requirement does not preclude the inclusion of these records in the permanent marker system or other requirements for institutional control.

a. 13. Attachment B-4b

B-4b ~~Permittee Level Three: WIPP Waste~~ Screening and Verification of TRU Mixed Waste

~~WIPP Waste~~ screening is ~~the third level of data verification and is~~ a two-phased process. Phase I will occur prior to transporting the TRU mixed waste to the WIPP facility. Phase II will occur after the TRU mixed waste shipment arrives but before it is emplaced. Figure B-5 presents the waste shipment screening process.

a. 14. Attachment B-4b(1)

The first phase of the waste screening and verification process will occur before TRU mixed waste is shipped to the WIPP facility. Before the Permittees ~~begins~~ **begin** the process of accepting TRU mixed waste from a generator/storage site, an initial audit of that generator/storage site will be conducted as part of the Permittees' Audit and Surveillance Program (Permit Attachment B6). The RCRA portion of the generator/storage site audit program will provide on-site verification of characterization procedures; **Batch Data Report** preparation; and recordkeeping to ensure that all applicable provisions of the WAP requirements are met. Another portion of the Phase I verification is the ~~waste stream characterization summary report~~

package completeness/accuracy review and acceptance by the Permittees as part of the Waste Stream Profile Form approval process. At the WIPP facility, this screening process includes verification that all of the required elements of a Waste Stream characterization summary package-Profile Form are present and that the summarized waste characterization data information meet acceptance criteria required for compliance with the WAP (Permit Attachment Section B3-12b(1)).

Once a generator/storage site has prepared a QAPjP, which includes applicable WAP requirements, it is submitted to the Permittees for review and approval (see Permit Attachment B5). Once approved, a copy of the QAPjP is provided to NMED for examination, as specified in Permit Attachment B5. The generator/storage site will implement the specific parameters of the QAPjP once after it is approved. The initial generator/storage site RCRA audit will be performed at some point after this implementation has taken place, but prior to management, storage, or disposal shipment of TRU mixed waste from that generator/storage site to WIPP. Additional audits, focusing on the results of waste characterization, will be performed at least annually. The Permittees have the right to conduct unannounced audits and to examine any records that are related to the scope of the audit. More detail about this audit program is provided later in this section and in Permit Attachment B6.

When the required waste stream characterization data have been collected by a generator/storage site and the initial generator/storage site audit has been successfully completed, the generator/storage Site Project Manager can verify that waste stream characterization meets the applicable WAP requirements as a part of the Level 2 data verification (Permit Attachment B3). If the waste characterization does not meet the applicable requirements of the WAP, the mixed waste stream cannot be managed, stored, or disposed at WIPP until those requirements are met. The generator will then complete a WSPF Waste Stream Profile Form and submit it to the Permittees, along with the accompanying Characterization Information Summary waste characterization documentation for that waste stream (Section B3-12b(1)). All data necessary to check to the accuracy of the WSPF Waste Stream Profile Form (data summary reports used to compile the form and the waste stream summary report) will be transmitted to the Permittees with the Waste Stream Profile Form for verification by the Permittees. This provides notification that the generator/storage site considers that the waste stream (identified by the waste stream identification number) has been adequately characterized for disposal prior to shipment to WIPP. The Permittees will compare headspace gas, radiographic, visual examination and solid sampling/analysis data obtained subsequent to submittal and approval of the WSPF (and prior to waste shipment) Waste Stream Profile Form with characterization information presented on this form. If the Permittee determines (through the data comparison) that the characterization information is adequate, the WSPF will be approved. Prior to the first shipment of containers from the approved waste stream, the approved Waste Stream Profile Form and accompanying Characterization Information Summary will be provided to NMED. If the data comparison indicates that analyzed containers have hazardous wastes not present on the Waste Stream Profile Form, or a different Waste Matrix Code applies, the Waste Stream Profile Form is in error and shall be resubmitted. Ongoing Waste Stream Profile Form examination is discussed in detail in Section B-4b(1)(ii). This comparison indicates that analyzed containers have hazardous wastes not present on the Waste Stream Profile Form, or a different Waste Matrix Code applies, the Waste Stream Profile Form is in error and shall be resubmitted. Refer to Section B-4b(1)(ii) for detail regarding ongoing Waste Stream Profile Form examination.

The Waste Stream Profile Form is provided as Figure B-1. It includes information on the generator/storage site name and EPA identification number, the technical contact for information on that waste stream, the WIPP ID, Summary Category Group, listing of acceptable knowledge documentation used, and waste characterization batch data report identification numbers associated with that waste stream. The form also requires the date of TSDf-WAC certification for that waste stream, procedures used for characterization, and EPA Hazardous Waste Code

designations. Upon the Permittees' approval of the TRU mixed waste stream for disposal, the generator may begin shipping waste containers from that waste stream. The approved Waste Stream Profile Form will be provided to NMED prior to TRU mixed waste management, storage, or disposal at WIPP.

~~As part of the waste characterization data submittal,~~ For subsequent shipments, the generator/storage site will also transmit the data on a container basis via the WWIS prior to shipment of that container. This data submittal can occur at any time as the data are being collected, but will be complete for each container prior to TRU mixed waste shipment of that container. The WWIS system will conduct internal edit/limit checks based on the approved WSPF. ~~as the data are entered, and the data will be available to the Permittees for review as supporting information for Waste Stream Profile Form review.~~ NMED will have read-only access to the WWIS as necessary to determine compliance with the WAP. The Permittees will compare ongoing sampling/analysis characterization data obtained and submitted via the WWIS to the approved WSPF. If this comparison shows that containers have hazardous wastes not reported on the Waste Stream Profile Form, or a different Waste Matrix Code applies, the data are rejected and the waste containers are not accepted for shipment. ~~The initial Waste Stream Profile Form check performed by the Permittees will include WWIS data and data summary reports for all sampling, testing, and analytical data. Subsequent checks following initiation of waste shipment shall be performed, comparing WWIS-transmitted data and the Waste Stream Profile Form.~~

If discrepancies arise as a result of the Phase I review, the generator/storage sites will be contacted by the Permittees and required to provide the necessary additional information to resolve the discrepancy before that waste stream is approved for disposal at the WIPP facility. If the discrepancy is not resolved, the waste stream will not be approved for disposal. The Permittees will notify NMED in writing of any discrepancies identified during WSPF Waste Stream Profile Form review and the resulting discrepancy resolution prior to waste disposal shipment. The Permittees will not manage, store, or dispose the waste stream until this discrepancy is resolved in accordance with this WAP.

a. 15. Attachment B-4b(1)(i)

All generator/storage sites planning to ship TRU mixed waste to WIPP will supply the required data to the WWIS. The Permittees will use the WWIS to verify that all of the supplied data meet the applicable edit and limit checks prior to the shipment of any TRU mixed waste to WIPP. The WWIS automatically will notify the generator/storage site if any of the supplied data fails to meet the requirements of the edit and limit checks via an appropriate error message. The generator/storage site will be required to correct the discrepancy with the waste or the waste data and re-transmit the corrected data prior to acceptance of the data by the WWIS. The Permittees will review data reported for each container of each shipment prior to providing notification to the shipping generator/storage site that the shipment is acceptable. Read-only access to the WWIS will be provided to the NMED. Table B-8 gives contains a partial listing of the data fields contained in the WWIS that are required as part of this permit Permit.

The WWIS will generate the following:

C Waste Emplacement Report

This report will be added to the operating record as an indication of to track the quantities of waste, date of emplacement, and location of authorized containers or container assemblies in the repository. The Permittees will document the specific panel room or drift that an individual waste container is placed in as well as the row/column/height

coordinates location of the container or containers assembly. This report will be generated on a weekly basis. Locations of containers or container assemblies will also be placed on a map separate from the WWIS. Reports and maps that are included as part of the operating record will be retained at the WIPP site, for the life of the facility.

C Shipment Summary Report

This report will contain the container IDs of every container in the shipment, listed by TRUPACT-II number and by assembly number (for seven packs), for every assembly in the TRUPACT-II. This report is used by the Permittees to verify containers in a shipment and will be generated on a shipment basis.

C Waste Container Data Report

This report will be generated on a waste stream basis and will be used by the Permittees ~~in~~ during the Waste Stream Profile Form review and approval process. This report will contain the data listed in the ~~Waste Characterization Data Module on Table B-8~~. This report will be generated and attached to the Waste Stream Profile Form for inclusion in the facility operating record and will be kept for the life of the facility.

C Reports of Change Log

This will consist of a short report that lists the user ID and the fields changed. The report will also include a reason for the change. A longer report will list the information provided on the short report and include a before and after image of the record for each change, a before-record for each deletion, and the new information for added records. These reports will provide an auditable trail for the data in the database.

The WWIS shall have data available for export so that the Permittees and NMED can summarize headspace gas concentrations for the open room being loaded. This is required to ~~permit~~ allow calculations of average room headspace gas concentrations to ensure they do not exceed the limits specified in Table B-2.

Access to the WWIS will be controlled by the Permittees' Data Administrator (**DA**) who will control the WWIS users based on approval from management personnel.

The TRU mixed waste generator/storage sites will only have access to data that they have supplied, and only until the data have been formally accepted by the Permittees. After the data have been accepted, the data will be protected from indiscriminate change and can only be changed by a authorized DA.

The WWIS has a ~~Data~~ Change Log that ~~will~~ requires a reason for the change from the DA prior to accepting the change. The data change information, the user ID of the authorized DA making the change, and the date of the change will be recorded in the data change log automatically. The data change log cannot be revised by any user, including the DA. The data change log will be subject to internal and external audits and will provide an auditable trail for all changes made to previously approved data.

a. 16. Attachment B-4b(1)(ii)

The Permittees will be responsible for the verification of completeness and accuracy of the Waste Stream Profile Form (~~Attachment~~ Section B3-12b(1)). The assignment of the waste stream description, Waste Matrix Code Group, and Summary Category Groups; the results of

waste analyses; the acceptable knowledge summary documentation; the methods used for characterization; the ~~TSDF-WAC-CAO~~ certification, and appropriate designation of EPA hazardous waste code(s) will be examined. If the Waste Stream Profile Form is inaccurate, efforts will be made to resolve discrepancies by contacting the generator/storage site. If discrepancies in the waste stream are detected at the generator/storage site, the generator/storage site will implement a non-conformance program to identify, document, and report discrepancies (Permit Attachment B3).

The Waste Stream Profile Form shall pass all verification checks by the Permittees in order for the waste stream to be approved for shipment to the WIPP facility. The Waste Stream Profile Form check against waste container data will occur during the initial Waste Stream Profile Form approval process (~~See~~Section B-4b(i)).

The USEPA hazardous waste codes for the wastes that appear on the Waste Stream Profile Form will be compared to those in the Permittees' RCRA Part A Permit Application (**Section XIV of Permit Attachment O**) to ensure that only wastes that contain constituents ~~contained~~ listed in **Section XIV the Part A** are approved for management, storage, or disposal at WIPP. Some of the waste may also be identified by unique state hazardous waste codes. These waste are acceptable at the WIPP as long as the TSDF-WAC are met. ~~Analytical data package summaries~~ **The Characterization Information Summary** will be reviewed by the Permittees to verify that the waste has been classified correctly with respect to the assigned USEPA hazardous waste codes. The analytical method used will be compared to those listed in Tables B-3, B-4, and B-5 to assure that only approved analytical methods were used for analysis of the waste. The Permittees will verify that TSDF-WAC compliance has been met by the generator/storage site.

The Permittees will also verify that three different types of data specified below are on every container holding TRU mixed waste before that waste is managed, stored, or disposed at WIPP. The following three verifications will be performed on data from the following determinations: 1) an assignment of the waste stream's waste description (by Waste Matrix Codes) and Waste Matrix Code Group; 2) a determination of ignitability, reactivity, and corrosivity; and 3) a determination of compatibility. The verification of waste stream description will be performed by reviewing the WWIS for consistency in the waste stream description and ~~WSPF~~ **Waste Stream Profile Form**. The ~~data summary report~~ **Characterization Information Summary** will indicate if the waste has been checked for the characteristics of ignitability, corrosivity, and reactivity. The final verification of waste compatibility will be performed using Appendix C1 of the WIPP RCRA Part B Permit Application (DOE, 1997), the compatibility study.

a. 17. Attachment B-4b(2)(vii)

- c Completed WIPP Waste Stream Profile Forms and accompanying ~~documentation~~ **Characterization Information Summary**, including individual container data as transferred on the WWIS (or received as hard-copy) and any discrepancy-related documentation as specified in Section B-4b(1)
- c Completed Waste Receipt Checklists and discrepancy-related documentation as specified in Section B-4b(2)
- c WIPP WWIS ~~Container~~ **Waste** Emplacement Report as specified in Section B-4b(1)(i)

a. 18. Attachment B-5

DOE, 1997. WIPP Waste Information System User's Manual for Use by Shippers/Generators.

a. 19. Attachment B, Table B-7

TABLE B-7
REQUIRED PROGRAM RECORDS MAINTAINED IN GENERATOR/STORAGE SITE PROJECT FILES

<p><u>Lifetime Records</u></p> <ul style="list-style-type: none"> • Field sampling data forms • Field and laboratory chain-of-custody forms • Test facility and laboratory Batch Data Reports • Summary data packages Waste Stream Characterization Package • Sampling Plans • Data reduction, validation, and reporting documentation • Acceptable knowledge documentation • Data reconciliation report • Waste Stream Profile Form and Characterization Information Summary
<p><u>Non-Permanent Records</u></p> <ul style="list-style-type: none"> • Nonconformance documentation • Variance documentation • Assessment documentation • Gas canister tags • Methods performance documentation • Performance Demonstration Program documentation • Sampling equipment certifications • Calculations and related software documentation • Training/qualification documentation • QAPjPs (generator/storage sites) documentation (all revisions) • Calibration documentation • Analytical raw data • Procurement documentation • QA procedures (all revisions) • Technical implementing procedures (all revisions) • Audio/video recording (radiography, visual, etc.)

a. 20. Attachment B, Figure B-1

A revised Figure B-1 is included in Attachment B

b. Attachment B1-4

Chain-of-Custody on field samples (including field QC samples) will be initiated immediately after sample collection or preparation. Sample custody will be maintained by ensuring sealed samples are custody sealed during shipment to the laboratory. After samples are accepted by the analytical laboratory, custody is maintained by assuring the samples are in the possession of an authorized individual, in that individual's view, in sealed or locked container controlled by that individual, or in a secure controlled access location. Sample custody will be maintained until ~~the associated analyses are completed and the data have been validated at the project level.~~ Sample custody will be maintained **the sample is released by the site project manager or** until the sample is expended or until the sample is removed from the sample analysis program. The Permittees shall require that site QAPjPs or site-specific procedures include a copy of the sample chain-of-custody form and instructions for completing sample chain-of-custody forms in a legally defensible manner. This form will include provisions for each of the following:

c. 1. Attachment B3 Table of Contents

B3-10 Data Review, Validation, and Verification Requirements

B3-10a Data Generation Level

B3-10a(1) Independent Technical Review

B3-10a(2) Technical Supervisor Review

B3-10a(3) QA Officer Review

B3-10b Project Level

B3-10b(1) Site Project QA Officer

B3-10b(2) Site Project Manager

B3-10b(3) Prepare Site Project QA Officer Summary and Data Validation Summary

B3-10b(4) Prepare Waste Stream Characterization Package

B3-10c Permittee Level

B3-11 Reconciliation with Data Quality Objectives

B3-11a Reconciliation at the Project Level

B3-11b Reconciliation at the Permittee Level

B3-12 Data Reporting Requirements

B3-12a Data Generation Level

B3-12b Project Level

B3-12b(1) Waste Stream Profile Form and Characterization Information Summary

B3-12b(2) Waste Stream Characterization Package

B3-12b(3) WIPP Waste Information System (**WWIS**) Data Reporting

c. 2. Attachment B3 List of Tables

Table	Title
B3-11	Testing Batch Data Report Contents
B3-12	Sampling Batch Data Report Contents
B3-13	Analytical Batch Data Report Contents
B3-14	Reporting Flags

c. 3. Attachment B3-10

~~Data review, validation, and verification requirements include procedures~~ Procedures shall be developed for the review, validation, and verification of data at the data generation level; the validation and verification of data at the project level; and the verification of data at the Permittees' level. Data review determines if raw data have been properly collected and ensures raw data are properly reduced. Data validation confirms that the data reported satisfy the requirements defined by of the user this WAP and is accompanied by signature release. Data verification authenticates that data as presented represent the sampling and analysis activities as performed and have been subject to the appropriate levels of data review. The ~~procedures~~ requirements presented in this section ensure that WAP records furnish documentary evidence of quality.

The Permittees shall require the sites to generate the following Batch Data Reports in either electronic or hard copy format for data validation, verification, and quality assurance activities:

A Testing Batch Data Report or equivalent includes all data pertaining to radiography and or visual examination for up to 20 waste containers without regard to waste matrix. Table B3-11 lists all of the information required in Testing Batch Data Reports (identified with an "X") and other information that is necessary for data validation, but is optional in Testing Batch Data Reports (identified with an "O"). ~~It includes data collection and results, the videotapes of the actual examination, and the appropriate data form.~~

A Sampling Batch Data Report or equivalent includes all field **sample collection** data pertaining to a group of no more than 20 **headspace gas or homogeneous waste** samples that were collected for chemical analysis. **Table B3-12 lists all of the information required in Sampling Batch Data Reports (identified with an "X") and other information that is necessary for data validation, but is optional in Sampling Batch Data Reports (identified with an "O").** Sampling Batch Data Reports may include chain of custody documentation and any measurements taken in the field such as temperature, pH, conductivity, as well as field notes, logs, and other field documentation.

An Analytical Batch Data Report or equivalent includes analytical ~~and on-line~~ data from the **sampling and analysis of TRU-mixed waste for an analytical batch of up to 20 headspace gas or homogeneous waste** samples. Analytical Batch Data Reports or equivalent that contain results for composited headspace gas samples must contain sufficient information to identify the containers that were composited for each composite sample. Because Analytical Batch Data Reports are generated based on the number of samples analyzed, an Analytical Batch Data Report may contain results that are applicable to more than 20 containers depending on how many composite samples are part of the report, but may not exceed a total of 20 samples analyzed. **Table B3-13 lists all of the information required in Analytical Batch Data Reports (identified with an "X") and other information that is necessary for data validation, but is optional in Analytical Batch Data Reports (identified with an "O").** Totals/TGLP analyses results and headspace gas sampling and analyses results are in the Analytical Batch Data Reports, which may also include summarized sample results, summarized QA sample results and recoveries, raw data, dates and times of analysis of all samples, and a case narrative describing any problems encountered or deviations from the approved analytical methods that occurred during the preparation and analysis of all samples.

Raw analytical data need not be included in Analytical Batch Data Reports, but must be maintained in the site project files and be readily available for review when requested by the Permittees. Raw data may include all analytical bench sheet and instrumentation readouts for all calibration standard results, sample data, QC samples, sample preparation conditions and logs, sample run logs, and all re-extraction, re-analysis, or dilution information pertaining to the individual samples. Raw data may also include **calculation records** and any qualitative or semi-quantitative data collected for a sample and that has been recorded on a bench sheet or in a log book.

On-line Batch Data Reports or equivalent contain the combined information from the Sampling Batch Data Report and Analytical Batch Data Report that is relevant to the on-line method used.

~~! — Data Summary Reports or equivalent include all of final reported results for analytical and testing data and all associated field and laboratory quality control sample results for a container. Data summary reports may also include a narrative summarizing the field sampling conditions, any information needed to correctly interpret the reported data, and notes regarding any deviations from standard analytical methods that were encountered as a result of sample matrix or field and/or lab QC problems. A data validation summary may also be included so that the qualification and usability of the data can be ascertained. A complete list of the elements required in the Data Summary Reports is in Section B3-10~~

~~! — Waste Stream Characterization Summary Packages, or equivalent, include a compilation of data summary reports for all sampling, testing, and analytical data, and acceptable knowledge documentation available for waste containers and/or waste generating processes for a waste stream. The contents of the Waste Stream Characterization summary Package are listed in Section B3-12.~~

c. 4. Attachment B3-10a

B3-10a Data Generation Level

The following are minimum requirements for raw data collection and management which the Permittees shall require for each site:

- ! All raw data shall be signed and dated in reproducible ink by the person generating it. Alternately, unalterable electronic signatures may be used.
- ! All data must be recorded clearly, legibly, and accurately in field and laboratory records (bench sheets, logbooks), and include applicable sample identification numbers (for sampling and analytical labs).
- ! All changes to original data must be lined out, initialed, and dated by the individual making the change. A justification for changing the original data may also be included. Original data must not be obliterated or otherwise disfigured so as not to be readable. Data changes shall only be made by the individual who originally collected the data or an individual authorized to change the data.
- ! All data must be transferred and reduced from field and laboratory records completely and accurately.
- ! All field and laboratory records must be maintained as specified in Table B-7 of Attachment B.
- ! Data must be organized into a standard format for reporting purposes (~~testing, sampling, analytical or on-line~~ Batch Data Report), as outlined in specific sampling and analytical ~~techniques~~ procedures.
- ! All electronic and video data must be stored appropriately to ensure that waste container, sample, and associated QC data are readily retrievable.

Data review, validation, and verification at this level involves scrutiny and signature release from qualified independent technical reviewer(s)¹, technical supervisors(s), and a QA representative, as specified below. Individuals conducting this data review, validation, and verification must use checklists that address all of the items included in this section. Checklists must contain or reference tables showing the results of sampling, analytical or on-line batch QC samples, if applicable. Checklists must reflect review of all QC samples and quality assurance objective categories in accordance with criteria established in Tables B3-2 through B3-9 (as applicable to the methods validated). Completed checklists must be forwarded with ~~testing, sampling, analytical and on-line~~ Batch Data Reports to the project level. Analytical raw data must be available and reviewed by the data generation level reviewer; however, it need not be included in the Batch Data Report.

c. 5. Attachment B3-10a(1)

Attachment B3-10a(1) Independent Technical Review

The independent technical review ensures by review of raw data that data generation and reduction are technically correct; calculations are verified correct; deviations are documented;

¹Independent technical review is performed by a competent individual who is not directly responsible for performing the work.

and QA/QC results are complete, documented correctly, and compared against WAP criteria. This review validates and verifies all of the work documented by the originator.

One hundred percent of the Batch Data Reports ~~for each type of analytical, sampling, or testing batch~~ must receive an independent technical review. This review shall be performed by an individual other than the data generator who is qualified to have performed the initial work. The independent technical review must be performed as soon as practicably possible in order to determine and correct negative quality trends in the sampling or analytical process. However at a minimum, the independent technical review must be performed before any waste associated with the data reviewed is managed, stored, or disposed at WIPP. The reviewer(s) must release the data as evidenced by signature, and as a consequence ensure the following **as applicable**:

- ! Data generation and reduction were conducted in a technically correct manner in accordance with the methods used (**procedure with revision**). Data were reported in the proper units. ~~and correct number of significant figures.~~
- ! Calculations have been verified by a valid calculation program, a spot check of verified calculation programs, and/or 100 percent check of all hand calculations. Values that are not verifiable to within rounding or significant difference discrepancies must be rectified prior to completion of independent technical review.
- ! The data have been reviewed for transcription errors.
- ! The testing, sampling, or analytical data QA documentation **for Batch Data Reports** ~~(testing batch, sampling batch, analytical or on-line batch)~~ is complete and includes, **as applicable**, raw data, calculation records, chain-of-custody (COC) forms, calibration records (or references to an available calibration package), QC sample results, and copies or originals of gas canister sample tags ~~(if applicable)~~. Corrective action will be taken to ensure that all **Batch Data Reports** are complete and include all necessary raw data prior to completion of the independent technical review.
- ! QC sample results are within established control limits, and if not, the data have been appropriately qualified in accordance with data useability criteria. Data outside of established control limits will be qualified as appropriate, assigned an appropriate qualifier flag, discussed in the case narrative, and included as appropriate in calculations for completeness.
- ! Reporting flags (**Table B3-14**) were assigned correctly.

Reporting flags include the following:

- ~~B~~ — Analyte detected in blank (Organics/ Headspace gases)
- ~~B~~ — Analyte blank concentration greater than or equal to 20 percent of sample concentration prior to dilution corrections (Metals)
- ~~E~~ — Analyte exceeds calibration curve (Organics/ Headspace gases)
- ~~J~~ — Analyte less than PRQL but greater than or equal to MDL (Organics/ Headspace gases)
- ~~J~~ — Analyte greater than or equal to IDL but less than 5 times the IDL before dilution correction (Metals)
- ~~U~~ — Analyte was not detected and value is reported as the MDL (IDL for Metals)

- ~~D~~ — Analyte was quantitated from a secondary dilution, or reduced sample aliquot (Organics/Headspace gases)
- ~~Z~~ — One or more QC samples do not meet acceptance criteria
- ~~H~~ — Holding time exceeded

- ! Sample holding time and preservation requirements were met, or exceptions documented.
- ! Radiography tapes have been reviewed (**independent observation**) on a waste container basis at a minimum of once per testing batch or once per day of operation, whichever is less frequent (**Section B1-3b(2)**). The radiography tape will be reviewed against the data reported on the radiography form to ensure that the data are correct and complete.
- ! Field sampling records are complete. Incomplete or incorrect field sampling records will be subject to resubmittal prior to completion of the independent technical review.

c. 6. Attachment B3-10a(2)

B3-10a(2) Technical Supervisor Review

The technical supervisor review ensures that the independent technical review was performed completely, that the Batch Data Report is complete, and verifies that the results are technically reasonable. This review validates and verifies that the characterization performed in this area is ready for QA office review.

One hundred percent of the Batch Data Reports must receive technical supervisory signature release for each testing batch, sampling batch, analytical batch and on-line batch. The technical supervisory signature release must occur as soon as practicably possible after the independent technical review in order to determine and correct negative quality trends in the sampling or analytical process. However at a minimum, the technical supervisory signature release must be performed before any waste associated with the data reviewed is managed, stored, or disposed at WIPP. This release must ensure the following **as applicable**:

- ! The data are technically reasonable based on the technique used.
- ! All data have received independent technical review with the exception of radiography tapes, which shall receive periodic technical review as specified in **Section B1-3b(2)** above.
- ! The testing, sampling, or analytical data QA documentation (~~testing batch, sampling batch, analytical batch or on-line batch~~) **for Batch Data Reports** is complete and includes raw data (**as applicable**), calculation records, COC forms, calibration records, QC sample results, and original or copies of gas sample canister tags (~~if applicable~~).
- ! Sample holding time requirements were met, or exceptions documented.
- ! Field sampling records are complete.

~~The technical supervisor must also ensure that container-specific data summary packages and waste stream-specific waste stream characterization summary packages are prepared as appropriate.~~

c. 7. Attachment B3-10a(3)

B3-10a(3) QA Officer Review

The data generation level QA review ensures that the Batch Data Report is complete, that QC checks (sample collection and meet the acceptance criteria, and that the appropriate QAOs have been met. This review verifies and validates that the characterization results meet the program QA/QC, that instrument performance criteria have been met, and that QAOs for the subject characterization area have been met.

The Permittees shall require for each site that one hundred percent of the Batch Data Reports receive QA officer (or designee) signature release. The QA officer signature release must occur as soon as practicably possible after the technical supervisory signature release in order to determine and correct negative quality trends in the sampling or analytical process. However at a minimum, the QA officer signature release must be performed before any waste associated with the data reviewed is managed, stored, or disposed at WIPP. This release must ensure the following **as applicable**:

- ! Independent technical and technical supervisory reviews have been performed as evidenced by the appropriate signature releases.
- ! ~~testing, sampling, or analytical data~~ QA documentation (~~testing batch, sampling batch, analytical batch or on-line batch~~) **for Batch Data Report** is complete as appropriate for the point of data generation. (~~i.e., radiography, RA, sampling, and analysis~~).
- ! Sampling and analytical QC checks have been properly performed. QC criteria that were not met are documented.
- ! QAOs have been met according to the methods outlined in Section B3-11.

~~The QA Officer must also verify that data summary packages and waste stream characterization summary packages are consistent with information found in analytical batch reports.~~

c. 8. Attachment B3-10b

B3-10b Project Level

Data validation and verification at this level involves scrutiny and signature release from the Site Project Manager (or designee) and the Site Project QA Officer (or designee). The Permittees shall require each site to meet the following minimum requirements for each waste container. Any nonconformance identified during this process shall be documented on a nonconformance report (Section B3-13).

The Site Project Manager and Site Project QA Officer shall ensure that a repeat of the data generation level review, validation, and verification is performed on the data for a minimum of one randomly chosen waste container quarterly (every three months). This exercise will document that the data generation level review, validation, and verification is being performed according to implementing procedures.

c. 9. Attachment B3-10b(1)

B3-10b(1) Site Project QA Officer

The Site Project QA Officer review ensures that the Batch Data Reports received from the data generation level is complete, validates and verifies that the QC checks were done properly and

meet program criteria, and ensures that the QAOs have been met.

One hundred percent of the ~~data summary packages and waste stream characterization summary package~~ Batch Data Reports must receive Site Project QA Officer signature release. The Site Project QA Officer signature release must occur as soon as practicably possible in order to determine and correct negative quality trends in the sampling or analytical process. However at a minimum, the Site Project QA Officer signature release must be performed before any waste associated with the data reviewed is managed, stored, or disposed at WIPP. This signature release must ensure the following as applicable:

- ! ~~Batch Data summary packages and waste stream characterization summary package reports~~ Reports are complete and data are properly reported (i.e., data are reported in correct units, ~~with correct significant figures,~~ and with correct qualifying flags).
- ! Sampling batch QC checks (e.g., equipment blanks, field duplicates, field reference standards) were properly performed, and meet the established QAOs and are within established data usability criteria.
- ! Testing batch QC checks (e.g., replicate scans, measurement system checks, ~~replicate counts~~) were properly performed. **Radiography data are complete and acceptable based on evidence of videotape review of one waste container per day or once per testing batch, whichever is less frequent, as specified in B1-3b(2).**
- ! Analytical batch QC checks (e.g., laboratory duplicates, laboratory blanks, matrix spikes, matrix spike duplicates, laboratory control samples) were properly performed and meet the established QAOs and are within established data usability criteria.
- ! On-line batch QC checks (e.g., field blanks, on-line blanks, on-line duplicates, on-line control samples) were properly performed and meet the established QAOs and are within established data usability criteria.
- ! Proper procedures were followed to ensure representative samples of headspace gas and homogenous solids and soil/gravel were taken.
- ~~! Radiography data are complete and acceptable based on evidence of videotape review of one waste container per testing batch, at a minimum.~~

c. 10. Attachment B3-10b(2)

B3-10b(2) Site Project Manager

The Site Project Manager Review is the final validation that all of the data contained in Batch Data Reports have been properly reviewed as evidenced by signature release and completed checklists.

One hundred percent of the ~~data summary packages and waste stream characterization summary package~~ Batch Data Reports must have Site Project Manager signature release. The Site Project Manager signature release must occur as soon as practicably possible after the Site Project QA Officer signature release in order to determine and correct negative quality trends in the sampling or analytical process. However at a minimum, the Site Project Manager signature release must be performed before any waste associated with the data reviewed is managed, stored, or disposed at WIPP. This signature release must ensure the following:

- ! Data generation level independent technical, technical supervisory, and QA officer (or designee) review, validation, and verification have been performed as evidenced by the **completed review checklists and** appropriate signature releases.
- ! ~~Testing, sampling, analytical and on-line~~Batch data review checklists are complete.
- ! ~~Data summary packages and waste stream characterization summary package reports are complete and data are properly reported (e.g., data are reported in the correct units, with the correct number of significant figures, and with qualifying flags):~~
- ! Verify that **data generation level and Site Project QA Officer reviews are complete and ensure that data are within established data assessment criteria and meet all applicable QAOs of this WAP**(Section B3-11).
- ! ~~The Site Project Manager and Site Project QA Officer shall ensure that a repeat of the data generation level review, validation, and verification is performed on the data for a minimum of one randomly chosen waste container quarterly (every three months). This exercise will document that the data generation level review, validation, and verification is being performed according to implementing procedures:~~

c. 11. Attachment B3-10b(3)

B3-10b(3) Prepare Site Project QA Officer Summary and Data Validation Summary-

~~In association with~~ **To document** the project-level validation and verification described above, the Permittees shall require each Site Project QA Officer (or designee) to prepare a Site Project QA Officer Summary and the Site Project Manager (or designee) to prepare a Data Validation Summary. These reports may be combined to eliminate redundancy **or incorporated into the Site Project QA Officer and Site Project Manager checklists**. The Site Project QA Officer Summary includes, ~~on a per waste container basis,~~ a validation checklist for each **Batch Data Report** ~~testing, sampling, analytical and on-line batch~~. Checklists for the Site Project QA Officer Summary must be sufficiently detailed to validate all aspects of a ~~testing, sampling, analytical or on-line batch~~ **Batch Data Report** that affect data quality. The Data Validation Summary provides confirmation that, on a per waste container basis **as evidenced by Batch Data Report reviews**, all data have been validated in accordance with the site QAPJP. The Data Validation Summary must ~~list each testing, sampling, analytical or on-line batch~~ **identify each Batch Data Report reviewed**, describe how the validation was performed and whether or not problems were detected, and include a statement indicating that all data are acceptable.

Once the data have received project-level validation and verification **or when the Site Project Manager decides the sample no longer needs to be retained**, the Site Project Manager must ensure that the laboratory is notified. Samples must be retained by the laboratory until this notification is received. Gas sample canisters may then be released from storage for cleaning, recertification, and subsequent reuse. Sample tags must be removed and retained in the project files before recycling the canisters. If the Site Project Manager requests that samples or canisters be retained for future use (e.g., an experimental holding time study), the same sample identification and COC forms shall be used and cross-referenced to a document which specifies the purpose for sample or canister retention.

c. 12. Attachment B3-10b(4)

B3-10b(4) Prepare Waste Stream Characterization Package

In the event the Permittees request detailed information on a waste stream, the site will provide a Waste Stream Characterization Package. The Site Project Manager can require each characterization area, data generation level technical supervisor, and QA officer to assist in preparation and review of the Waste Stream Characterization Package (Section B3-12b(2)) as necessary to ensure the package will support the Site Project Manager's waste characterization determinations.

c. 13. Attachment B3-10c

B3-10c Permittees' Level

The ~~third and final~~ level of data verification occurs at the Permittees' level and must, at a minimum, consist of an inventory check of the ~~data summary~~ **Batch Data Reports** to verify completeness. **This is done through the Permittees' Audit and Surveillance Program (Permit Attachment B6).** The Permittees are responsible for verification that ~~data summary reports~~ include the following:

- ~~! — Project level signature releases~~
- ~~! — Listing of all waste containers being presented in the report~~
- ~~! — Listing of all testing, sampling, and analytical batch numbers associated with each waste container being reported in the package~~
- ~~! — Analytical Batch Data Report case narratives~~
- ~~! — Site Project QA Officer Summary~~
- ~~! — Data Validation Summary~~
- ~~! — Complete summarized qualitative and quantitative data for all waste containers with data flags and~~

~~The~~ **For initial Waste Stream Profile Form approval,** the Permittees must verify that each ~~submittal data summary report and waste stream characterization summary report~~ is complete and notify the originating site in writing of the ~~acceptance status~~ **approval** of the ~~data within two weeks of waste stream characterization summary package receipt~~ **Waste Stream Profile Form**. The Permittees will maintain the data as appropriate for use in the regulatory compliance programs. **At a minimum the verification must:**

- ! Ensure the correct assignment of the waste stream description, Waste Matrix Code Group, Summary Category Groups, and EPA hazardous waste codes**
- ! Reconcile data**
- ! Contain summarized results of characterization**
- ! Contain acceptable knowledge summary documentation**
- ! List the methods used for characterization**

For subsequent shipments made after the Waste Stream Profile Form approval, the verification will be made via the WWIS internal limit checks (Section B-4b(1)(i)).

c. 14. Attachment B3-11a

B3-11a Reconciliation at the Project Level

The Permittees shall require each Site Project Manager to ensure that all data generated and

used in decision making meet the DQOs provided in Section B-4a(1) of the text of Permit Attachment B. To do so, the Site Project Manager must assess whether data of sufficient type, quality, and quantity have been collected. The Site Project Manager must determine if the variability of the data set is small enough to provide the required confidence in the results. The Site Project Manager must also determine if, based on the desired error rates and confidence levels, a sufficient number of valid data points have been determined. In addition, the Site Project Manager must document that random sampling of containers was performed for the purposes of waste stream characterization.

For each waste stream characterized, the Permittees shall require each Site Project Manager to determine if sufficient data have been collected to determine the following WAP-required waste parameters:

- ! Waste matrix code
- ! Waste material parameter weights
- ! If each waste container of waste contains TRU radioactive waste
- ! Mean concentrations, UCL_{90} for the mean concentrations, standard deviations, and the number of samples collected for each VOC in the headspace gas of waste containers in the waste stream
- ! The potential flammability of TRU waste headspace gases
- ! Mean concentrations, UCL_{90} for the mean concentrations, standard deviations, and number of samples collected for VOCs, SVOCs, and metals in the waste stream (if applicable)
- ! Whether the waste stream exhibits a toxicity characteristic (TC) under 40 CFR Part 261, Subpart C
- ! Whether the waste stream can be classified as hazardous or nonhazardous at the 90-percent confidence level
- ! Whether a sufficient number of waste containers have been visually examined (as a QC check on radiography) to determine with a reasonable level of certainty that the UCL_{90} for the miscertification rate is less than 14 percent (if applicable)
- ! Whether all TICs were appropriately identified and reported in accordance with the requirements of Section B3-1 prior to submittal of a Waste Stream Profile Form for a waste stream or waste stream lot.
- ! Whether the overall completeness, comparability, and representativeness QAOs were met for each of the analytical and testing procedures as specified in Sections B3-2 through B3-9 prior to submittal of a Waste Stream Profile Form for a waste stream or waste stream lot.
- ! Whether the PRQLs for all analyses were met prior to submittal of a Waste Stream Profile Form for a waste stream or waste stream lot.

If the Site Project Manager determines that insufficient data have been collected to make the determinations listed above, additional data collection efforts must be undertaken. The reconciliation of a waste stream shall be performed prior to issuance submittal of the Waste

Stream Profile Form for that waste stream. **For subsequent shipments, data reconciliation is done on all containers or samples prior to shipment to WIPP.** Thus, the Permittees shall not manage, store, or dispose of TRU mixed waste at WIPP unless the Site Project Manager determines that the WAP-required waste parameters listed above have been met.

The statistical procedure presented in Permit Attachment B2 shall be used by participating Site Project Managers to evaluate and report waste characterization data from the analysis of homogeneous solids and soil/gravel. The procedure, which calculates UCL_{90} values, shall be used to assess compliance with the DQOs in Section B-4a(1) as well as with RCRA regulations. The procedure must be applied to all laboratory analytical data for total VOCs, total SVOCs, and total metals. For RCRA regulatory compliance (40 CFR § 261.24), data from the analysis of the appropriate metals and organic compounds shall be expressed as toxicity characteristic leaching procedure (TCLP) values or results may also be compared to the TC levels expressed as total values. These total values will be considered the regulatory threshold limit (RTL) values for the WAP. RTL values are obtained by calculating the weight/weight concentration (in the solid) of a TC analyte that would give the regulatory weight/volume concentration (in the TCLP extract), assuming 100-percent analyte dissolution.

c. 15. Attachment B3-11b

B3-11b Reconciliation at the Permittees' Level

The Permittees must also ensure that data of sufficient type, quality, and quantity are collected to meet WAP DQOs. **This is accomplished by review of the original Waste Stream Profile Form and Permittees' Audit and Surveillance Program (Permit Attachment B6).** The Permittees will ensure sufficient data have been collected **in accordance with Section B-4a(1)** to determine the following:

- ! The concentration of VOC constituents in the headspace in the total waste inventory has not exceeded the environment performance standards of **20.4.1.500** NMAC ~~4.1.500~~ (incorporating 40 CFR §264.601(b)) as specified in Module IV;
- ! Whether waste streams proposed for disposal in WIPP have been adequately characterized; and
- ! Whether data supports the information contained in the WIPP RCRA permit application

c. 16. Attachment B3-12a

B3-12a Data Generation Level

Data shall be transmitted by hard copy or electronically (provided a hard copy is available on demand) from the data generation level to the project level. Transmitted data shall include all ~~testing, sampling, or analytical~~ Batch Data Reports, and data review checklists. **The Batch Data Reports forms and checklists used must contain all of the information required by the testing, sampling, and analytical techniques described in Permit Attachments B1 through B6, as well as the signature releases to document the review, validation, and verification as described in Section B3-10.** ~~All testing, sampling, and analytical~~ Batch Data Reports and checklists shall be **in approved formats**, as provided in site-specific documentation.

~~Testing and sampling and analytical~~ **Batch Data Reports** shall be forwarded to the site project office. Site QAPJs shall specify the individual at the site project office who will receive these reports. ~~After review by the Site Project QA Officer, all batch data reports will be forwarded to the~~

~~Site Project Manager. All testing, sampling, and analytical Batch Data Reports shall be assigned serial numbers, and each page shall be numbered. The serial number used for Batch Data Reports can be the same as the testing, sampling, or analytical batch number.~~

QA documentation, **including raw data** shall be maintained in either testing, sampling, and analytical facility files, or site project files for those facilities located on site in accordance with the document storage requirements of site approved site QAPjPs. Contract waste operation **characterization** facilities shall forward testing, sampling, and analytical QA documentation along with ~~testing, sampling, and analytical batch data reports~~ **Batch Data Reports** to the site project office for inclusion in site ~~central~~ **project** files.

c. 17. Attachment B3-12b

B3-12b Project Level

~~There are two aspects to~~ **The site project level reporting office must ensure that the Characterization Information Summary and the Waste Stream Characterization Package (when requested by the Permittees) are prepared as appropriate. In addition, the site project office shall prepare a Waste Stream Profile Form for each waste stream certified for shipment to WIPP. The Site Project QA Officer must also verify these reports are consistent with information found in analytical batch reports. First, Summarized testing, sampling, and analytical characterization data must be reported on a per-waste container basis are included with the Waste Stream Profile Form. Second, summarized characterization information must be reported on a waste stream basis. The contents of the Waste Stream Profile Form, the Characterization Information Summary, and the Waste Stream Characterization Package are discussed in the following sections.**

~~Summarized testing, sampling, and analytical data shall be transmitted by hard copy or electronically from the Site Project Manager to the Permittees when requested. A Waste Stream Characterization Package must be submitted when requested by the Permittees. Participation sites shall combine data from individual waste containers into waste stream characterization summary packages for reporting. Hard copy or electronic waste stream characterization summary packages shall consist of the following:~~

- ~~€~~ Cover page with the site name and program identification waste container number and approval/release signatures of the Site Project Manager and Site Project QA Officer
- ~~€~~ Table of contents; and
- ~~€~~ A concise narrative that summarizes the results of the project level review and briefly describes any problems or other noteworthy items of interest associated with the data (i.e., nonconformance reports). The narrative shall include separate sections which address results of duplicates/replicates and nonconformance reports associated with the waste containers being reported in the package.

c. 18. Attachment B3-12b(1)

B3-12b(1) Waste Stream Profile Form and Characterization Information Summary

The Waste Stream Profile Form (Figure B-1) includes the following information must be reported on a waste stream basis:

- ! Generator/storage site name**

- ! Generator/storage site EPA ID
- ! Date of audit report approval by NMED (if obtained)
- ! Assignment of waste stream description
- ! Summary Category Group
- ! Waste Matrix Code Group
- ! Waste stream name
- ! Applicable EPA hazardous waste codes
- ! Applicable TRUCON codes
- ! Certification signature of Site Project Manager, name, title, and date signed

For each waste container being reported in the waste stream characterization summary packages, the following information shall be included:

- ~~! Cover page with the site name and program identification waste container number and approval/release signatures of the Site Project Manager and Site Project QA Officer~~
- ~~! A table that relates sample number (testing, sampling, and analytical) to waste container number~~
- ~~! Table of contents~~
- ~~! Site Project QA Officer Summary~~
- ~~! Data Validation Summary~~
- ~~! Radiography results~~
- ~~! Waste container headspace gas VOC summary analytical results~~
- ~~! Total VOC, SVOC, and metal analytical results for homogenous solids and soil/gravel (if applicable)~~

The Characterization Information Summary includes the following elements:

- ! Data reconciliation with DQOs
- ! Cross-reference of container identification numbers to each Batch Data Report
- ! Headspace gas summary data listing the identification numbers of samples used in the statistical reduction, the maximum, mean, standard deviation, UCL_{90} , RTL, and associated EPA hazardous waste codes that must be applied to the waste stream.
- ! TIC listing and evaluation, and verification that AK was confirmed.

- ! RTR and VE summary to document prohibited items are not present and to confirm AK.
- ! AK summary including waste stream name, waste stream number, point of generation, waste stream volume, generation dates, TRUCON codes, TWBIR information, generating processes, RCRA determinations, and radionuclide information.

After approval of a Waste Stream Profile Form and the associated Characterization Information Summary by the Permittees, the generator/storage site are required to maintain a cross reference of container identification numbers to each Batch Data Report.

c. 19. Attachment B3-12b(2)

B3-12b(2) Waste Stream Characterization Package

The Waste Stream Characterization Package consists of the following:

- ! Waste Stream Profile Form
- ! Accompanying Characterization Information Summary
- ! Complete AK summary
- ! Batch Data Reports supporting the confirmation of AK as well as others requested by the Permittees
- ! Raw analytical data requested by the Permittees

c. 20. Attachment B3-12b(3)

B3-12b(3) WIPP Waste Information System (WWIS) Data Reporting

The WWIS data dictionary ~~contains~~ **includes** all of the data fields, the field format and the limits associated with the data as established by ~~the WIPP Treatment, Storage, and Disposal Facility Waste Acceptance Criteria (TSDF-WAC)~~ **this WAP**. These data will be subjected to edit and limit checks that are performed automatically by the database, **as defined in the WIPP Waste Information System User's Manual for Use by Shippers/Generators (DOE, 1997)**. If a container was part of a composite headspace gas sample, the analytical results from the composite sample must be assigned as the container headspace gas data results, including any associated TICs.

c. 21. Attachment B3-16

DOE, 1997. WIPP Waste Information System User's Manual for Use by Shippers/Generators. CAO-97-2273, Current Revision, Carlsbad, New Mexico, Carlsbad Area Office, U. S. Department of Energy.

U.S. Department of Energy (DOE), 1995a, "Transuranic Waste Characterization Sampling and Analysis Methods Manual," DOE/WIPP 91-043, Current Revision, Waste Isolation Pilot Plant, Carlsbad, New Mexico.

c. 22. Attachment B3 Table B3-11

**TABLE B3-11
TESTING BATCH DATA REPORT CONTENTS**

Required Information	Radiography	Visual Examination as QC Check on Radiography	Visual Verification of Acceptable Knowledge	Comment
Batch Data Report Date	X	X	X	
Batch number	X	X	X	
Waste container number	X	X	X	
Waste stream name and/or number	O	O	O	
Waste Matrix Code	X	X	X	Summary Category Group included in waste matrix code
Implementing procedure (specific version used)	X	X	X	If procedure cited contains more than one method, the method used must also be cited. Can use revision number, date, or other means to track specific version used.
Container type	O	O	O	Drums, Standard Waste Box, Ten Drum Overpack, etc.
Videotape reference	X	X		Reference to Videotape(s) applicable to each container. For visual examination (for characterization) of newly generated waste, videotape not required if two trained operators review the contents of the waste container to ensure correct reporting.
Imaging check	O			
Camera check		O		
Audio check	O	O		

Required Information	Radiography	Visual Examination as QC Check on Radiography	Visual Verification of Acceptable Knowledge	Comment
QC check of scales		O	O	Available documented evidence calibrated scale(s) were used. Only applicable if items are weighed during the visual examination.
QC documentation	X	X	X	
Description of liners and layers of confinement (if possible)	X	X	X	
Indication of vented rigid liners	O	X	X	Only required for containers with rigid liners. If RTR is used to verify, then include in Testing Batch Data Report.
Description of container contents	X	X	X	Provide enough detail for verification of estimated weights for the 12 waste matrix parameters.
Verification that the physical form matches the waste stream description and Waste Matrix Code.	X	X	X	Summary Category Group included in waste matrix code
Indication of sealed containers > 4L	X	X	X	
Amount of free liquids	X	X	X	
Estimated weights for the 12 waste matrix parameters	X	X	X	Table B3-1 lists waste matrix parameters.
Container gross weight	X	X	X	

Required Information	Radiography	Visual Examination as QC Check on Radiography	Visual Verification of Acceptable Knowledge	Comment
Container empty weight	O	O	O	Established, documented empty container weights can be used.
Comments	X	X	X	
Reference to or copy of associated NCRs, if any	X	X	X	Copies of associated NCRs must be available.
Visual examination expert decisions		X		Only applicable if visual examination expert is consulted during visual examination.
Verify absence of prohibited items	X	X	X	
Operator signature and date of test	X	X	X	2 signatures required for Visual Verification of Acceptable Knowledge
Signature of visual examination expert and date		X		When visual examination expert is consulted.
Data review checklists	X	X	X	

LEGEND:

X - Required in batch data report.

O - Information must be documented and traceable; inclusion in batch data report is optional.

c. 23. Attachment B3 Table B3-12

**TABLE B3-12
SAMPLING BATCH DATA REPORT CONTENTS**

Required Information	Headspace Gas	Solid Sampling	Comment
Batch Data Report Date	X	X	
Batch number	X	X	
Waste stream name and/or number	O	O	
Waste Matrix Code		X	Summary Category Group included in Waste Matrix Code
Procedure (specific version used)	X	X	If procedure cited contains more than one method, the method used must also be cited. Can use revision number, date, or other means to track specific version used.
Container number	X	X	
Container type	O	O	Drums, Standard Waste Box, Ten Drum Overpack, etc.
Sample matrix and type	X	X	
Analyses requested and laboratory	X	X	
Point of origin for sampling	X	X	Location where sample was taken (e.g., building number, room)
Sample number	X	X	
Sample size	X	X	
Sample location	O	O	Location within container where sample is taken. (For HSG, specify what layer of confinement was sampled. For solids, physical location within container.)
Sample preservation	X	X	
Person collecting sample	X	X	

Required Information	Headspace Gas	Solid Sampling	Comment
Person attaching custody seal	O	O	May or may not be the same as the person collecting the sample
Chain of custody record	X	X	Original or copy is allowed
Sampling equipment numbers	X	X	For disposable equipment, a reference to the lot
Cross-reference of sampling equipment numbers with associated cleaning batch numbers	O	X	As applicable to the equipment used for the sampling. For disposable equipment, a reference to the lot and procurement records to support cleanliness is sufficient
Drum age	O		
Equilibration time	O		
Verification of rigid liner venting	O		Only applicable to containers with rigid liners
Verification that sample volume taken is small in comparison to the available volume	O		Must include headspace gas volume when it can be estimated
Scale Calibration		O	
Depth of waste		X	For newly generated waste, if a sampling method other than coring is used, this is replaced by documentation that a representative sample has been taken.
Calculation of core recovery		X	For newly generated waste, if a sampling method other than coring is used, this is replaced by documentation that a representative sample has been taken.
Co-located core description		X	For newly generated waste, if a sampling method other than coring is used, this is replaced by documentation that a QC sample has been taken.

Required Information	Headspace Gas	Solid Sampling	Comment
Time between coring and subsampling		X	Only applicable to coring.
OVA calibration and reading	O		Only applicable to manifold systems. Must be done in accordance with manufacturer's specifications
Field Records	X	X	Must contain the following as applicable to the sampling method used: Collection problems, Sequence of sampling collection, Inspection of the solids sampling area, Inspection of the solids sampling equipment, Coring tool test, random location of sub-sample, canister pressure, and ambient temperature and pressure.
Reference to or copy of associated NCRs, if any	X	X	Copies of associated NCRs must be available.
Operator Signature and date and time of sampling	X	X	
Data review checklists	X	X	

LEGEND:

X - Required in batch data report.

O - Information must be documented and traceable; inclusion in batch data report is optional.

c. 24. Attachment B3 Table B3-13

**TABLE B3-13
ANALYTICAL BATCH DATA REPORT CONTENTS**

Required Information	Headspace Gas	Solid Sampling	Comment
Batch Data Report Date	X	X	
Batch number	X	X	
Sample numbers	X	X	
QC designation for sample	X	X	
Implementing procedure (specific version used)	X	X	If procedure cited contains more than one method, the method used must also be cited. Can use revision number, date, or other means to track specific version used.
QC sample results	X	X	
Sample data forms	X	X	Form should contain reduced data for target analytes and TICs
Chain of custody	X	X	Original or copy
Gas canister tags	X		Original or copy
Sample preservation	X	X	
Holding time		O	
Cross-reference of field numbers to laboratory sample numbers	X	X	
Date and time analyzed	O	O	
Confirmation of spectra used for results	O	O	Analyst must qualitatively evaluate the validity of the results based on the spectra, can be implemented as a check box for each sample
TIC evaluation	O	O	
Reporting flags, if any	X	X	Table B3-14 lists applicable flags
Case narrative	X	X	
Reference to or copy of associated NCRs, if any	X	X	Copies of associated NCRs must be available.
Operator signature and analysis date	O	O	
Data review checklists	X	X	

LEGEND:

X - Required in batch data report.

O - Information must be documented and traceable; inclusion in batch data report is optional.

c. 25. Attachment B3 Table B3-14

**TABLE B3-14
DATA REPORTING FLAGS**

DATA FLAG	INDICATOR
B	Analyte detected in blank (Organics/ Headspace gases)
B	Analyte blank concentration greater than or equal to 20 percent of sample concentration prior to dilution corrections (Metals)
E	Analyte exceeds calibration curve (Organics/ Headspace gases)
J	Analyte less than PRQL but greater than or equal to MDL (Organics/ Headspace gases)
J	Analyte greater than or equal to IDL but less than 5 times the IDL before dilution correction (Metals)
U	Analyte was not detected and value is reported as the MDL (IDL for Metals)
D	Analyte was quantitated from a secondary dilution, or reduced sample aliquot (Organics/ Headspace gases)
Z	One or more QC samples do not meet acceptance criteria
H	Holding time exceeded

d. 1. Attachment B4-4

The Permittees shall require confirmation of acceptable knowledge characterization designations at the site, as stated in Section B4-3(b). In addition and prior to notifying a site that a waste stream can be managed, stored, or disposed at the WIPP facility, the Permittees will review the Waste Stream Profile Forms, the WIPP Waste Information System (**WWIS**), and associated ~~data packages~~ **Characterization Information Summary** to ensure that radiography or visual examination, headspace-gas sampling and analysis data, and homogeneous waste sampling and analysis data confirm hazardous waste characterization made using acceptable knowledge. The Permittees shall require all sites to provide all of the required data associated with waste stream characterization, including summary acceptable knowledge information, radiography or visual examination, headspace gas sampling and analysis, and homogeneous waste sampling and analysis results. In addition, sites will designate the assigned hazardous waste codes for the waste stream on the waste profile form. The WWIS and associated ~~data packages~~ **Characterization Information Summary** will be evaluated as illustrated in Figure B4-2 and compared to the hazardous waste codes specified on the Waste Stream Profile Form. The Permittees will review information provided by the sites to ensure that additions to hazardous waste codes are identified and justified based on data and that hazardous waste codes are included in the Part A of the WIPP permit application. As part of the reconciliation of data quality objectives (**DQOs**) (Permit Attachment B3, Section B3-11), sites are required to track and report changes to hazardous waste characterizations. If data consistently indicates that discrepancies with acceptable knowledge information were identified at the site level (and were subsequently reconciled), the Permittees will require sites to reassess the materials and processes that generate the waste, and resubmit waste stream profile information and implement their corrective action system. If the Permittees' review of a Waste Stream Profile Form and associated waste characterization data reveal nonconformance with acceptable knowledge requirements as described in Permit Attachment B3 (i.e. project level nonconformance), the Permittees shall not manage, store, or dispose of the waste stream until corrective action is taken as specified in Permit Attachment B3. Repeated nonconformances by a site in

implementing and documenting WAP requirements (Permit Attachment B) will result in the termination of management, storage, or disposal of the site's waste, waste stream(s), or summary category group(s), as applicable. Management, storage, or disposal of the subject waste summary category at WIPP will not resume until the Permittees find that all corrective actions have been implemented and the site complies with all applicable requirements of the WAP.

d. 2. Attachment B4 Figure B4-2

A revised copy of Figure B4-2 is included in Attachment B

e. 1. Attachment B6 Table B6-1

Table B6-1
<p>With respect to data generation, are procedures in place to ensure that the generator/storage site's waste characterization program meets the following general requirements:</p> <ul style="list-style-type: none"> • Analytical data packages and Batch Data Reports must be reported accurately in a pre-approved format, must be maintained in permanent files, and must be traceable? • All data must receive a technical review by another qualified analyst or the technical supervisor, and the laboratory QA officer? • All raw data must be reviewed and have the release signatures of a technical supervisor and a QA officer before release? <p>(Section B-4(a)(4), B-3) (Section B3-10)</p>
<p>Are procedures in place to ensure that the generator/storage site's data summary reports Batch Data Reports are reviewed at the project level and include the following information:</p> <ul style="list-style-type: none"> A. Site name? B. Program identification? C. Waste container numbers? D. Release signatures from the Site Project Manager and the Site Project QA Officer? <p>and</p> <ul style="list-style-type: none"> E. A concise narrative summarizing the results of the site project level review? <p>(Section B-4(a)(6) B3-10) (Section B3-12)</p>

<p>Are procedures in place to ensure that hard copy or electronic data packages Waste Stream Profile Form and Characterization Information Summary will include the following:</p> <ul style="list-style-type: none"> ! Cover Page with Site name, program identification, waste container numbers, and release signatures of Site Project Manager and Site QA Officer ! Table of Contents ! Concise narrative <p>Waste container specific information that includes:</p> <ul style="list-style-type: none"> Cover Page with site name, program identification, waste container number, and release signatures of Site Project Manager and Site QA Officer • Sample number to waste container number cross reference table • Table of Contents • Site Project QA Officer Summary Data Validation Summary • Radiography/Visual Examination results Acceptable knowledge documentation supporting the waste stream characterization • Headspace gas sample results • Total VOC, SVOC, and Metals results if applicable <p>Waste Stream Profile Form:</p> <ul style="list-style-type: none"> C Generator/storage site name C Generator/storage site EPA ID C Date of audit report approval by NMED (if obtained) C Assignment of waste stream description C Summary Category Group C Waste Matrix Code Group C Waste stream name C Applicable EPA hazardous waste codes C Applicable TRUCON codes C Certification signature of SPM, name, title, and date signed <p>Characterization Information Summary:</p> <ul style="list-style-type: none"> C Data reconciliation with DQOs C Cross-reference of container identification numbers to each Batch Data Report C Headspace gas summary data listing the identification numbers of samples used in the statistical reduction, the maximum, standard deviation, UCL₉₀, RTL, and associated EPA hazardous waste codes that must be applied to the waste stream C TIC listing and evaluation, and verification that AK is confirmed C RTR and VE summary to document prohibited items are not present and to confirm AK C AK summary including waste stream name, waste stream number, point of generation, waste stream volume, generation dates, TRUCON codes, TWBIR information, generating processes, RCRA determinations, and radionuclide information <p>Are procedures in place to assure that ongoing container characterization results are cross referenced to Batch Data Reports?</p> <p>(Section B3-12b(2))</p>
<p>Are procedures in place to ensure that project level reports are compiled into summarized in data summary reports summarized on a per waste container basis and on a waste stream basis in a waste stream characterization summary report Characterization Information Summaries (Section B3-12b)</p>
<p>Are procedures in place to ensure that the generator/storage site's Site P Project Manager completes a WSPF based on the waste stream summary information Batch Data Reports? (Section B-4a(6)) (B3-12b(1))</p>
<p>Are procedures in place to ensure that the generator/storage site's Site P Project Manager submits the WSPF to the Permittees for approval along with the accompanying Characterization Information Summary waste documentation for that waste stream? (Section B-4a(6)) (B3-12b(1))</p>

Are procedures in place to ensure that the generator/storage site maintains records that are designated as Lifetime Records for the life of the waste characterization program plus six years, and then offer those records to the Permittees or transferred to the appropriate Federal Records Center (FRC)? include:

- A. Field sampling data forms,
- B. Field and laboratory COC forms,
- C. Test facility and laboratory **Batch Data Reports**,
- D. ~~Summary data packages~~ **Waste Stream Characterization Package**,
- E. Sampling plans,
- F. Data reduction, validation, and reporting documentation,
- G. Acceptable knowledge documentation,
- H. Data reconciliation report, and
- I. Waste Stream Profile Form **and Characterization Information Summary**
(Section B-4a(7), Table B-7)

e. 2. Attachment B6 Table B6-3

Table B6-3

Prior to shipment, does the site review Waste Stream Profile Forms, the WWIS, and associated ~~data packages~~ **Batch Data Reports** to ensure that confirmatory analyses verify hazardous waste characterization from acceptable knowledge?
(Section B4-4)

**ATTACHMENT B
SUPPORTING INFORMATION**

Table 1 Data Reporting Permit Modification Justification of Specific Changes

Table 1 Data Reporting Permit Modification Justification of Specific Changes

Permit Section	Item	General Justification
Attachment B		
TOC	Revise B-4a to reflect new reporting level designations	For consistency, reporting Level 1, 2, 3 or Level I, II, III have been changed to “data generation level,” “project level,” and “Permittee Level,” respectively.
	Revise B-4b to clarify new reporting level designations.	For consistency, reporting Level 1, 2, 3 or Level I, II, III have been changed to “data generation level,” “project level,” and “Permittee Level,” respectively.
List of Figures	Delete Figure B-4, Levels of Data Verification	Since the revised text in Section B3-10 clearly discusses the three levels of data verification, Figure B-4 is no longer necessary.
Introduction	Revise text to add general reference to: “Characterization Information Summary” and delete reference to specific reports.	The use of “Characterization Information Summary” replaces the references to specific reports that are inconsistent throughout the Permit.
	Add paragraph discussing Permittees option to request additional information, e.g., Waste Stream Characterization Package.	This change clarifies that it is not necessary to submit large volumes of information with the Waste Stream Profile Form. If additional information is needed to determine whether the waste stream can be approved, additional information will be requested. When requested, the generator/storage site will generate the Waste Stream Characterization Package for that waste stream. The Waste Stream Characterization Package is generated and submitted only upon request. Some of the elements that might be required in the package are listed.
B-1c	Revise text to clarify new reporting level designations.	For consistency, reporting Level 1, 2, 3 or Level I, II, III have been changed to “data generation level,” “project level,” and “Permittee Level,” respectively.
B-1d	Revise text to include a reference to the appropriate section for Waste Stream Profile Form and Characterization Information Summary; delete itemized information.	The specific contents of the Waste Stream Profile Form and the Characterization Information Summary should be listed in Attachment B3-12b(1), while only a general discussion and cross-reference is appropriate in Attachment B.
	Revise text to use “Waste Stream Profile Form” and “Characterization Information Summary.”	Where appropriate, cross-references have been added to the appropriate section that contains detailed discussion; where appropriate, “Waste Stream Profile Form” and “Characterization Information Summary” replaces inconsistent references to data records or other titles used for the same information.
	Add paragraph discussing Permittee’s option to request additional information, e.g., Waste Stream Characterization Package and its contents.	This change clarifies that is not necessary to submit large volumes of information with the Waste Stream Profile Form. If additional information is needed to determine whether the waste stream can be approved, the Permittee will request additional information. When requested, the generator/storage site will provide the Waste Stream Characterization Package. The Waste Stream Characterization Package is generated and submitted only upon request.

Permit Section	Item	General Justification
B-3	Add "Batch Data Reports" and delete "data reports and data packages...."	Batch Data Reports are used by the sites to report characterization data. The specific contents of testing, sampling, and analytical Batch Data Reports have been added to Section B3-10 to ensure that the generator/storage sites report the appropriate data in a standard format.
B-4	Revise text to clarify new reporting level designations.	For consistency, reporting Level 1, 2, 3 or Level I, II, III have been changed to "data generation level," "project level," and "Permittee Level," respectively.
B-4a	Revise text to clarify new reporting level designations.	For consistency, reporting Level 1, 2, 3 or Level I, II, III have been changed to "data generation level," "project level," and "Permittee Level," respectively.
B-4a(4)	Revise text to clarify Batch Data Reports; delete redundant text regarding the reporting requirements and audit information.	Batch Data Reports are used by the sites to report characterization data. The specific contents of testing, sampling, and analytical Batch Data Reports have been added to Section B3-10 to ensure that the generator/storage sites report the appropriate data in a standard format. The information discussed in the deleted text is also discussed in other sections of the Permit.
B-4a(5)	Revise text to clarify testing and sampling Batch Data Reports; delete redundant text regarding the reporting requirements.	Batch Data Reports are used by the sites to report characterization data. The specific contents of testing, sampling, and analytical Batch Data Reports have been added to Section B3-10 to ensure that the generator/storage sites report the appropriate data in a standard format.
	Delete redundant text that discusses data verification at all three reporting levels.	Since Data Verification is discussed generally in Section B4 and specific details are discussed in Section B3-10, the information discussed in the deleted text is redundant.
B-4a(6)	Revise text to clarify the use of Batch Data Reports; delete redundant text regarding the reporting requirements.	Since the specific details of Data Transmittal are discussed in Section B3-10, the information discussed in the deleted text is redundant.
	Revise text to clarify the use of Characterized Information Summary and submittal of information via WWIS.	This change reflects the new terminology for summary information and actual process for the transmittal of data to the Permittees via the WWIS.
B-4a(7)	Revise text to clarify new reporting level designations.	For consistency, reporting Level 1, 2, 3 or Level I, II, III have been changed to "data generation level," "project level," and "Permittee Level," respectively
B-4b	Revise text to clarify new reporting level designations.	For consistency, reporting Level 1, 2, 3 or Level I, II, III have been changed to "data generation level," "project level," and "Permittee Level," respectively.
B-4b(1)	Revise text to clarify Permittee's Phase 1 verification; delete redundant text regarding the Waste Stream Profile Form; add references to the appropriate Sections in B3	The revised text reflects the Permittees Phase 1 screening and verification process without eliminating any requirements; the deleted information is discussed in other Sections of the Permit. Appropriate references to the Sections were added.
B-4b(1)(i)	Revise text to clarify use of the WWIS.	Minor changes to make the text regarding the WWIS clearer.
B-4b(1)(ii)	Revise text to use "Characterization Information Summary" in lieu of "data package summaries" and "data summary report."	For consistency, "Characterization Information Summary" is being used throughout the Permit, where appropriate, for various references to data packages, data summary reports, documentation, etc.

Permit Section	Item	General Justification
B-4b(2)(vii)	Revise text to use "Characterization Information Summary" in lieu of "documentation."	For consistency, "Characterization Information Summary" is being used throughout the Permit, where appropriate, for various references to data packages, data summary reports, documentation, etc.
B-5	Add WWIS User's Manual to List of References.	Update list of references.
Table B-7	Replace "summary data package" with "Waste Stream Characterization Package."	The term "summary data package" is no longer being used throughout the Permit. The Waste Stream Characterization Package should be retained as a Lifetime Record.
Attachment B1		
B1-4	Delete inconsistent requirements regarding the management of samples.	Section B3-10 requires that samples not be released until the Site Project Manager authorizes such release. The text in B1-4 was inconsistent with this requirement. Therefore, the text in B1-4 was changed.
Attachment B3		
TOC	Add new subsections to B3-10, 11, 12	Add new subsections for reporting levels to Table of Contents.
List of Tables,	Add Table B3-14.	Add Reporting Flags that were relocated from the text to the table.
B3-10	Revise text to add specific contents of Testing, Sampling, and Analytical Batch Data Reports; add Tables B3-11, -12, and -13.	In order to provide the minimum reporting elements for each of the Batch Data Reports, the specific contents for the testing, sampling and analytical Batch Data Reports are appropriately listed.
	Add statement that "Analytical raw data need not be included in Batch Data Reports, but it must be maintained in the project files and be readily available for review when requested by the Permittees."	Although the analytical raw data must be available upon request, it is not necessary for the analytical raw data to be included in the Batch Data Reports. The volumes of printed material generated by analytical software is useful only at the data generation level and to qualified reviewers. In addition, this will eliminate the need of both voluminous copying and excessive storage space.
	Add "calculation records".	Calculation records are part of the raw data.
	Delete text that address "Waste Stream Characterization Summary Packages."	The use of "Waste Stream Characterization Summary Packages" has been replaced with "Waste Stream Characterization Package" and is discussed in Section B3-10b(4) and the elements are listed in B3-12b(3).
B3-10a	Add subsection numbering for <u>Data Generation Level</u> , <u>Independent Technical Review</u> , <u>Technical Supervisor Review</u> , and <u>QA Officer Review</u>	The subsection numbering makes Attachment B3 consistent with the rest of the Permit.
	Add "(for sampling and analytical labs)." Revise text to indicate that analytical raw data must be available for review, but it is not required to be included in the Batch Data Report.	The added parenthetical clarifies that sample identification numbers would include identification numbers for sampling and analytical labs. Although the raw data must be available upon request, it is not necessary for the raw data to be included in the Batch Data Reports. The volumes of printed material generated by analytical software is useful only at the data generation level and to qualified reviewers.

Permit Section	Item	General Justification
B3-10a(1)	Add text to reflect the Independent Technical Review process; delete text containing review of characterization summary packages and waste stream characterization summary packages.	The added text clearly describes the responsibilities of the Independent Technical Reviewer; these reports are not generated until the project level; therefore, they cannot be reviewed at this lower level. This corrects an inconsistency in the permit.
	Move reporting flag indicators from text to Table B3-14.	The reporting flag information is easier to read in tabular form and makes the bulleted list of responsibilities easier to read.
B3-10a(2)	Add text to reflect the Technical Supervisor Review; delete text containing review of characterization summary packages and waste stream characterization summary packages.	The added text clearly describes the responsibilities of the Technical Supervisor; these reports are not generated until the project level; therefore, they cannot be reviewed at this lower level. This corrects an inconsistency in the Permit.
B3-10a(3)	Add text to reflect the QA Officer Review; change QA documentation to Batch Data Reports; delete text containing review of characterization summary packages and waste stream characterization summary packages.	The added text clearly describes the responsibilities of the QA Officer review; the QA documentation is part of the Batch Data Report; these reports are not generated until the project level, therefore they cannot be reviewed at this lower level.
B3-10b	Add subsection numbering for <u>Project Level</u> , <u>Site Project QA Officer</u> , <u>Site Project Manager</u> , <u>Site Project QA Officer Summary</u> , <u>Data Validation Summary</u> , and <u>Waste Stream Characterization Package</u>	The subsection numbering makes Attachment B3 consistent with the rest of the Permit.
	Relocate requirement to perform the quarterly check of the data for at least one container to this location.	This is a project level responsibility and therefore best fits under this section.
B3-10b(1)	Add text to reflect the Site Project QA Officer data review, validation, and verification process. Revise text to reflect the use of Batch Data Reports in lieu of data summary packages and waste stream characterization summary packages. Combine last bullet with 3 rd bullet and insert reference to B1-3b(2).	The added text clarifies the Site Project QA Officer's data review, validation, and verification activities. The use of "Data Summary Reports" has been replaced with "Batch Data Reports". The radiography check is part of the QC check. Ensuring that the proper procedures were followed is the responsibility of the Independent Technical Reviewer and Technical Supervisor.
B3-10b(2)	Add text to reflect the Site Project Manager's data validation process. Revise text to reflect the use of Batch Data Reports in lieu of data summary packages and waste stream characterization summary packages; delete redundant text regarding the reporting process.	The added text clarifies the Site Project Manager's validation activities. As discussed in Section B3-10, Batch Data Reports are the appropriate report to be utilized.
	Delete the 3 rd bullet.	The deleted text is redundant with the compliance requirements for the QAO objectives in the next bullet.
	Relocate requirement to perform the quarterly check of the data for at least one container to this location.	This is a project level responsibility and therefore best fits under Section B3-10b.

Permit Section	Item	General Justification
B3-10b(3)	Revise text to reflect Site Project QA Officer's Summary and Site Project Manager's Data Validation Summary; also add text to allow these summaries to be incorporated into the Site Project Manager's and the Site Project QA Officer's checklists; also add text that allows the Site Project Manager to decide when samples are no longer need to be retained.	Incorporation of the Site Project QA Officer's Summary and Data Validation Summary into the Site Project QA Officer's and Site Project Manager's checklists is acceptable. The Site Project Manager has discretion to decide when samples no longer need to be retained in order to free up storage space and equipment, although s/he releases samples at the risk of possible resampling.
B3-10b(4)	Add paragraph to discuss the preparation of the Waste Stream Characterization Package when requested.	If additional information is needed to determine whether the waste stream can be approved, additional information will be requested. The Site Project Manager can request assistance from the data generation level.
B3-10c	Add subsection for <u>Permittee Level</u> of data verification; and revise text to discuss the verification process; delete redundant, bulleted information regarding the data summary reports.	The use of "Data Summary Reports" has been replaced with "Batch Data Reports", which are discussed in detail in Section B3-10.
	Add text regarding Permittee's initial Waste Stream Profile Form approval and subsequent verification via WWIS; add bulleted list of elements that need verification.	Permittees will approve the Waste Stream Profile Form by verifying compliance with the minimum reporting elements (bulleted list). After the initial Waste Stream Profile Form approval, Permittees will verify compliance of new containers via the WWIS.
B3-11a	Add subsection numbering; add "(as a QC check on radiography)"; add text regarding data reconciliation for shipments after the initial reconciliation of the Waste Stream Profile Form.	The subsection numbering makes Attachment B3 consistent with the rest of the Permit. The added parenthetical clarifies that VE is a QC check on radiography. The added text clarifies the reconciliation process at the project level for subsequent changes.
B3-11b	Revise text to reflect reconciliation at the Permittee's level via the WSPF and Audit and Surveillance Program; delete redundant text regarding sufficient data collection and reference Section B-4a(1) instead.	The added text reflects how Permittees verify WAP DQOs have been met; deletion of the bulleted list and referring to Section B-4a(1) will eliminate possible inconsistencies and redundant text.
B3-12a	Add subsection number for <u>Data Generation Level</u>	The addition of subsections makes this section consistent with the rest of the WAP; the text revision now reflects the correct report titles.
B3-12b	Add subsections for <u>Site Project Level</u> , <u>Waste Stream Profile Form and Characterization Information Summary</u> , <u>Waste Stream Characterization Package</u> , and <u>WWIS</u> ; Revise text and delete redundant bullets.	The addition of subsections makes this section consistent with the rest of the WAP; the text revision now reflects the correct report titles.
B3-12b(1)	Add text to specify the contents of the Waste Stream Profile Form and Characterization Information Summary.	The added text provides the information required in both the Waste Stream Profile Form and the Characterization Information Summary. The revised text clears up the confusion in the original WAP as to what elements are reported in the Waste Stream Profile Form and the accompanying Characterization Information Package. Assures that generator/storage site maintains a cross reference of containers with their associated Batch Data Reports.
B3-12b(2)	Add text to clarify the contents of the Waste Stream Characterization Package.	The added text provides the information required the Waste Stream Characterization Package.

Permit Section	Item	General Justification
B3-12b(3)	Add reference for WWIS Users Manual as source of data field dictionary.	The current definitions for the WWIS data fields is the Users manual. A reference to this manual was added.
B3-16	Add WWIS Users Manual to List of References; delete Methods Manual from List of References.	Include the WWIS User's Manual that contains the required fields and format for reporting data via the WWIS; delete the Transuranic Waste Characterization Sampling and Analysis Methods Manual that was canceled when the Hazardous Waste Facility Permit became effective on November 26, 1999.
Table B3-11	Add table to define the reporting requirements for a Testing Batch Data Report	Reporting requirements are moved form the text to a table to provide a concise listing.
Table B3-12	Add table to define the reporting requirements for a Sampling Batch Data Report	Reporting requirements are moved form the text to a table to provide a concise listing.
Table B3-13	Add table to define the reporting requirements for an Analytical Batch Data Report	Reporting requirements are moved form the text to a table to provide a concise listing.
Table 3-14	Add table to include the Reporting Flag Indicators that were previously in B3-10.	The new table relocates the information from the text in B3-10a(1). This information is more readable in a tabular format.
ATTACHMENT B4		
B4-4	Change "data packages" to "Characterization Information Summary" .	The change to Characterization Information Summary reflects changes made in Attachments B and B3.
B4	Add Figure B4-2, Confirmation of Acceptable Knowledge.	Figure B4-2 was revised to replace "data packages" with "Batch Data Report" for consistency with Attachments B and B3.
ATTACHMENT B6		
B6	Make changes to B6 checklists.	The changes are consistent with reporting changes made in Attachments B and B3.

Table 2 Data Management Report Summary

**Table 2
Data Management Report Summary**

No.	Existing Report Title	Level Generated	No.	Revised Report Title	Comments
1	Waste Stream Profile Form	Project Level	1	Waste Stream Profile Form	Identification of the contents has been moved from Attachment B to Attachment B3, Section B3-12b(1). An example Waste Stream Profile Form is found in Figure B-1.
2 3 4 5 6	Data Summary Report B-4b(1) Waste Stream Characterization Summary Report Introduction, B-4, B3-10c Waste Stream Characterization Summary Package B-4a(6), B-4b(1), B3-10c Waste Stream Characterization Summary Report Package B-4b(1) Waste Stream Characterization Summary Package Report B-4a-5	Project Level	2	Characterization Information Summary	Submitted with the Waste Stream Profile Form. Identification of the contents are added to Section B3-12b(1).
7 8	Batch Data Reports - Testing - Sampling - Analytical Data Summary Report B3-10c	Data Generation Level	3	Batch Data Reports - Testing - Sampling - Analytical	Deleted the requirement that analytical raw data be included in Batch Data Reports. Analytical raw data must be available for review if requested by the SPO, Permittees, or NMED. Identification of the contents of each type of Batch Data Report is added to B3-10 and Tables B3-11, -12, and -13
9	Waste Stream Characterization Summary Package B3-10	Project Level	4	Waste Stream Characterization Package	This report was not the same in B3-10 as when referenced in B-4a(6), B4b(1), and B3-10c. In this section it referred to the Waste Stream Characterization Package rather than the Characterization Information Summary that is submitted with the Waste Stream Profile Form.
10	Data Validation Summary	Project Level	5	Data Validation Summary	Contents discussed in B3-10b(3).
11	Site Project QA Officer Summary	Project Level	6	Site Project QA Officer Summary	Contents discussed in B3-10b(3).

**Revised Figure B-1
Waste Stream Profile Form (Example)**

WIPP WASTE STREAM PROFILE FORM

Waste Stream Profile Number: _____
Generator Site Name: _____ Technical contact: _____

Generator Site EPA ID: _____ Technical Contact phone number: _____

Date of audit report approval by NMED: _____

Title, version number, and date of documents used for WAP certification: _____

Did your facility generate this waste? Q Yes Q No
If no, provide the name and EPA ID of the original generator: _____

WIPP ID: _____ Summary Category Group: _____

Waste Matrix Code Group: _____ Waste Stream Name: _____

Description from the WTWBIR: _____
-

Defense Waste: Q Yes Q No Check one: Q CH Q RH
Number of SWBs _____ Number of Drums _____ Number of Canisters _____
Data package **Batch Data Report** numbers supporting this waste stream characterization: _____
List applicable EPA Hazardous Waste Codes⁽²⁾ _____
Applicable TRUCON Content Codes: _____

Acceptable Knowledge Information⁽¹⁾

[For the following, enter supporting the documentation used (i.e., references and dates)]

Required Program Information

- C Map of site: _____
- C Facility mission description: _____
- C Description of operations that generate waste _____

- Waste identification/categorization schemes: _____
- Types and quantities of waste generated: _____
- Correlation of waste streams generated from the same building and process, as appropriate: _____

C Waste certification procedures: _____

Required Waste Stream Information

- C Area(s) and building(s) from which the waste stream was generated: _____
- C Waste stream volume and time period of generation: _____
- C Waste generating process description for each building: _____
- C Process flow diagrams: _____

-
- Material inputs or other information identifying chemical/radionuclide content and physical waste form:
-

C Which Defense Activity generated the waste: (check one)

- Weapons activities including defense inertial confinement fusion
- Naval Reactors development
- Verification and control technology
- Defense Research and development
- Defense nuclear waste and material by products management
- Defense nuclear materials production
- Defense nuclear waste and materials security and safeguards and security investigations

Figure B-1(Example only)
WIPP Waste Stream Profile Form

Waste Stream Profile Form

Supplemental Documentation

Process design documents: _____

Standard operating procedures: _____

Safety Analysis Reports: _____

Waste packaging logs: _____

Test plans/research project reports: _____

Site data bases: _____

Information from site personnel: _____

Standard industry documents: _____

Previous analytical data: _____

Material safety data sheets: _____

Sampling and analysis data from comparable/surrogate waste: _____

Laboratory notebooks: _____

Sampling and Analysis Information⁽²⁾

[For the following, when applicable, enter procedure title(s), number(s), and date(s)]

Radiography: _____

Visual examination: _____

Headspace Gas Analysis

VOCs: _____

Flammable: _____

Other gases (specify): _____

Homogeneous Solids/Soils/Gravel Sample Analysis

Total metals: _____

PCBs: _____

VOCs: _____

Nonhalogenated VOCs: _____

Semi-VOCs: _____

Revised Figure B4-2