

ATTACHMENT B7

**PERMITTEE LEVEL TRU WASTE ~~APPROVAL AND ACCEPTANCE~~
CONFIRMATION PROCESSES**

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ATTACHMENT B7

PERMITTEE LEVEL TRU WASTE APPROVAL AND ACCEPTANCE CONFIRMATION PROCESSES

1 Introduction

2 This part of the Waste Analysis Plan (WAP) describes the actions that the Permittees will take
3 to approve and accept waste for storage and disposal at the Waste Isolation Pilot Plant (WIPP),
4 including waste stream profile form (WSPF) approval and waste examination confirmation
5 activities.

6 The Permittees demonstrate compliance with the Hazardous Waste Facility Permit (HWFP) by
7 assuring ensuring that the waste analysis characterization processes performed by
8 generator/storage sites (sites) produce data compliant with the WAP and through the waste
9 screening and verification processes. Verification occurs at three levels: 1) the data generation
10 level, 2) the project level, and 3) the Permittee level. The Permittees also examine a
11 representative subpopulation of waste prior to disposal to assure confirm that the waste
12 contains no ignitable, corrosive or reactive waste; and that assigned Environmental Protection
13 Agency (EPA) hazardous waste numbers are allowed by the HWFP Permit. The waste
14 examination confirmation activities described herein may occur at the WIPP facility or off-site
15 (e.g., generator/storage site).

16 B7-1 Permittee Confirmation Level Waste Screening and Verification of TRU Mixed Waste

17 Waste confirmation is defined in Module I as the activities performed by the Permittees to satisfy
18 the requirements specified in Section 311 of Pub. L. 108-137. Waste confirmation occurs after
19 waste containers have been certified for disposal at WIPP. The general confirmation process for
20 WIPP waste is presented in Figure B7-1.

21 Permittee waste screening is a two-phased process. Phase I will occur prior to configuring
22 shipments of transuranic (TRU) mixed waste. Phase II will occur after the configuration of
23 shipments of TRU mixed waste but before it is placed into storage or disposed at the WIPP
24 facility. Figure B7-1 presents the TRU mixed waste screening process.

25 B7-1a Phase I Waste Stream Screening and Verification

26 Audits of generator/storage sites will be conducted as part of the Permittees' Audit and
27 Surveillance Program (Permit Attachment B6). The RCRA portion of the generator/storage site
28 audit program will provide on-site verification of waste analysis procedures; Batch Data Report
29 (BDR) preparation; and record keeping to assure that all applicable provisions of the WAP
30 requirements are met. As part of the waste analysis data submittal, the generator/storage site
31 will also transmit the data on a container basis via the WIPP Waste Information System
32 (WWIS). This data submittal can occur at any time as the data are being collected, but will be
33 complete for each container prior to shipment of that container. The WWIS will conduct internal
34 edit/limit checks as the data are entered, and the data will be available to the Permittees as

1 supporting information for WSPF review. NMED will have read-only access to the WWIS as
2 necessary to determine compliance with the WAP. The initial WSPF check performed by the
3 Permittees will include WWIS data submitted by the generator/storage site for each waste
4 container. The Permittees will compare ongoing sampling/waste analysis data obtained and
5 submitted via the WWIS to the approved WSPF. If this comparison shows that containers have
6 hazardous wastes not reported on the WSPF, or a different Waste Matrix Code applies, the data
7 are rejected and the waste containers are not accepted for shipment until a new or revised
8 WSPF is submitted to and approved by the Permittees.

9 Another portion of the Phase I verification is the WSPF approval process. At the WIPP facility,
10 this process includes verification that all of the required elements of the WSPF and the Waste
11 Analysis Information Summary are present (Permit Attachment B3) and that the waste analysis
12 information meets acceptance criteria required for compliance with the WAP (Section B-1d):

13 If discrepancies regarding hazardous waste number assignment or Waste Matrix Code
14 designation arise as a result of the Phase I review, the generator/storage sites will be contacted
15 by the Permittees and required to provide the necessary additional information to resolve the
16 discrepancy before that waste stream is approved for disposal at the WIPP facility. If the
17 discrepancy is not resolved, the waste stream will not be approved.

18 B7-1a(1) Permittees' Audit and Surveillance Program

19 An important part of the Permittees' verification process is the Permittees' Audit and
20 Surveillance Program. The focus of this audit program is compliance with this WAP and the
21 Permit. This audit program addresses the AK implementation process, including waste
22 sampling and analysis activities, and assures compliance with standard operating procedures
23 (**SOPs**) and the WAP. Audits will assure that containers and their associated documentation
24 are adequately tracked throughout the waste handling process. Operator qualifications will be
25 verified, and implementation of quality assurance/quality control (**QA/QC**) procedures will be
26 surveilled. A final report that includes generator/storage site or Permittee approved laboratory
27 audit results and applicable WAP-related corrective action report (**CAR**) resolution will be
28 provided to New Mexico Environment Department (**NMED**) for approval, and will be kept in the
29 WIPP facility operating record until closure of the WIPP facility.

30 For generator/storage sites that have NMED approved final audit reports as of the effective
31 date of Permit Attachment B7, those generator/storage sites may continue to comply with the
32 provisions of the Permit in effect prior to the approval of Permit Attachment B7 until the
33 effective date of Permit Attachment B7 or until the next annual recertification audit for that
34 generator/storage site, whichever occurs later.

35 A generator/storage site must first prepare a Quality Assurance Project Plan (**QAPjP**), which
36 includes applicable WAP requirements, and submit it to the Permittees for review and
37 approval (Permit Attachment B5). Once approved, a copy of the QAPjP will be provided to
38 NMED. The generator/storage site will implement the specific parameters of the QAPjP after it
39 is approved. An initial audit will be performed after QAPjP implementation and prior to the
40 generator/storage site being certified for shipment of waste to WIPP. Audits will be performed
41 at least annually thereafter, including the possibility of unannounced audits (i.e., not a
42 regularly scheduled audit). These audits will allow NMED to verify that the Permittees have

1 implemented the applicable requirements of the WAP and that generator/storage sites have
2 implemented the acceptable knowledge (AK) process for the analysis of waste and meet
3 applicable WAP requirements. The Permittees will also audit annually the Permittee approved
4 laboratories performing waste sampling and/or analysis.

5 B7-1a(2) WWIS Description

6 All generator/storage sites planning to store or dispose of TRU mixed waste at WIPP will
7 supply the required data to the WWIS. The WWIS Data Dictionary includes all of the data
8 fields, the field format and the limits associated with the data as established by this WAP.
9 These data will be subjected to edit and limit checks that are performed automatically by the
10 database, as defined in the *WIPP Waste Information System User's Manual for Use by*
11 *Shippers/Generators* (DOE, 2001).

12 The Permittees will coordinate the data transmission with each generator/storage site. Actual
13 data transmission will use appropriate technology to assure the integrity of the data
14 transmissions. The Permittees will require sites with large waste inventories and large
15 databases to populate a data structure provided by the Permittees that contains the required
16 data dictionary fields that are appropriate for the waste stream (or waste streams) at that site.
17 For example, totals analysis data will not be requested from sites that do not have
18 homogeneous solids or soil/gravel waste. The Permittees will access these data via the
19 Internet to assure an efficient transfer of this data. Small quantity sites will be given a similar
20 data structure by the Permittees that is tailored to their types of waste. Sites with very small
21 quantities of waste will be provided with the ability to assemble the data interactively to this
22 data structure on the WWIS.

23 The Permittees will use the WWIS to verify that all of the supplied data meet the edit and limit
24 checks prior to the shipment of any TRU mixed waste to WIPP. The WWIS automatically will
25 notify the generator/storage site if any of the supplied data fails to meet the requirements of
26 the edit and limit checks via an appropriate error message. The generator/storage site will be
27 required to correct the discrepancy with the waste or the waste data and re-transmit the
28 corrected data prior to acceptance of the data by the WWIS. The Permittees will review data
29 reported for each container of each shipment prior to providing notification to the shipping
30 generator/storage site that the shipment is acceptable. Read-only access to the WWIS will be
31 provided to the NMED. Table B7-1 contains a listing of the data fields in the WWIS that are
32 required as part of this Permit, when applicable.

33 The WWIS will generate the following:

34 ~~C~~ Waste Emplacement Report

35 This report will be added to the operating record to track the quantities of waste, date
36 of emplacement, and location of authorized containers or container assemblies in the
37 repository. The Permittees will document the specific panel room or drift that an
38 individual waste container is placed in as well as the row/column/height coordinates
39 location of the container or containers assembly. This report will be generated on a
40 weekly basis. Locations of containers or container assemblies will also be placed on a

1 ~~map separate from the WWIS. Reports and maps that are included as part of the~~
2 ~~operating record will be retained at the WIPP site, for the life of the facility.~~

3 ~~—— C —— Shipment Summary Report~~

4 ~~—— This report will contain the container identification numbers (IDs) of every container in~~
5 ~~the shipment, listed by Shipping Package number and by assembly number (for~~
6 ~~seven-packs, four-packs, and three-packs), for every assembly in the Shipping~~
7 ~~Package. This report is used by the Permittees to verify containers in a shipment and~~
8 ~~will be generated on a shipment basis.~~

9 ~~—— C —— Waste Container Data Report~~

10 ~~—— This report will be generated on a waste stream basis and will be used by the~~
11 ~~Permittees during the WSPF review and approval process. This report will contain the~~
12 ~~data listed in the Waste Analysis Module on Table B7-1. This report will be generated~~
13 ~~and attached to the WSPF for inclusion in the facility operating record and will be kept~~
14 ~~for the life of the facility.~~

15 ~~—— C —— Reports of Change Log~~

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

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

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

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

33 ~~B7-1a(3) Examination of the Waste Stream Profile Form and Container Data Checks~~

34 ~~The Permittees are responsible for verifying the completeness and accuracy of the WSPF~~
35 ~~(Permit Attachment B3, Section B3-11b(1)). Figure B7-2 presents the Permittees waste~~
36 ~~stream approval process. The generator/storage sites shall analyze their waste in accordance~~

1 with the requirements of Permit Attachment B, Waste Analysis Plan, Permit Attachment B1
2 Waste Analysis Sampling Methods, Attachment B2 Statistical Methods Used in Sampling and
3 Analysis, and Attachment B4 TRU Mixed Waste Analysis Using Acceptable Knowledge, and
4 assure that waste proposed for storage and disposal at WIPP meets the Treatment, Storage,
5 and Disposal Facility Waste Acceptance Criteria (**TSDF-WAC**) (Permit Conditions II.C.3.a
6 through II.C.3.h.). The generator/storage site shall assemble the AK information into an
7 auditable record¹ for the waste stream as described in Permit Attachment B4. To resolve the
8 assignment of EPA hazardous waste numbers, the generator/storage site shall perform
9 sampling and analysis on a representative sample of the waste stream. Headspace gas
10 sampling and analysis shall be performed on debris waste. Solids sampling and analysis shall
11 be performed for homogeneous solid or soil/gravel waste streams. The sampling and analysis
12 process is depicted in Figure B7-6:

13 For those waste streams that have sufficient AK information to assign EPA hazardous waste
14 numbers the generator/storage sites may submit a request to the Permittees for an AK
15 Sufficiency Determination.

16 The request will include an AK Summary Report that addresses the following required items:

- 17 ——— 1. ——— Mandatory AK information is available (Permit Attachment B4-2a and B4-2b);
- 18 ——— 2. ——— A waste stream has been properly delineated and meets the HWFP definition
19 of a waste stream (Permit Attachment B4-2b and B-1a);
- 20 ——— 3. ——— The AK process described in the HWFP was followed (for example, AK
21 personnel were appropriately trained; discrepancies in the AK record were
22 documented and resolved (Permit Attachment B4-3a);
- 23 ——— 4. ——— The generator/storage site has developed a written procedure for compiling the
24 AK information and assigning hazardous waste numbers as required by Permit
25 Attachment B4-3b;
- 26 ——— 5. ——— The generator/storage site has assessed the AK process (Permit Attachment
27 B4-3b);
- 28 ——— 6. ——— The generator/storage site has documented evidence that the waste meets the
29 TSDF-WAC (Permit Condition II.C.3.a through II.C.3.h).

30 The Permittees will review the request, resolve comments with the generator/storage site and
31 if the Permittees determine that the AK is sufficient, they will provisionally approve the request
32 and forward the request to NMED for an evaluation that the provisional approval made by the
33 Permittees is adequate. Based on the results of the NMED's evaluation, the Permittees will
34 notify the generator/storage sites whether the AK information is sufficient. The Permittees will
35 not approve an AK Sufficiency Determination that the NMED has determined to be inadequate
36 unless the generator/storage site resolves the inadequacies. If the AK information is not
37 sufficient the Permittees will require the generator/storage site to perform sampling and
38 analysis per Permit Attachment B2 and Figure B2-1. In lieu of requesting an AK Sufficiency

¹ "Auditable records" mean those records which allow the Permittees to conduct a systematic assessment, analysis, and evaluation of the Permittees compliance with the WAP and this Permit.

1 Determination, the generator/storage site may decide to perform sampling and analysis in
2 accordance with Permit Attachment B2 and Figure B2-1. After a complete AK record has been
3 compiled, the generator/storage site will complete a WSPF and Waste Analysis Information
4 Summary. The Waste Analysis Information Summary will include an AK Summary Report. The
5 assignment of the waste stream description, Waste Matrix Code Group, and Summary
6 Category Groups; the results of waste analyses; the acceptable knowledge summary
7 documentation; the methods used for waste analysis; the Carlsbad Field Office (CBFO)
8 certification, and appropriate designation of EPA hazardous waste number(s) will be
9 examined. If the WSPF is inaccurate, efforts will be made to resolve inaccuracies by
10 contacting the generator/storage site in order for the waste stream to be eligible for shipment
11 to the WIPP facility. The WSPF check against waste container data will occur during the initial
12 WSPF approval process.

13 The EPA hazardous waste numbers for the wastes that appear on the Waste Stream Profile
14 Form will be compared to those in the WIPP Hazardous Waste Permit Application Part A,
15 Permit Attachment O, to ensure that only approved wastes are accepted for storage or
16 disposal at WIPP. Some of the waste may also be identified by unique state hazardous waste
17 numbers. These wastes are acceptable at WIPP as long as the TSDf-WAC are met. The
18 Waste Analysis Information Summary will be reviewed by the Permittees to verify that the
19 waste has been classified correctly with respect to the assigned EPA hazardous waste
20 numbers. The Permittees will verify that TSDf-WAC compliance has been met by the
21 generator/storage site.

22 Waste data transferred via the WWIS after WSPF approval will be compared with the
23 approved WSPF. Any container from an approved hazardous waste stream with a description
24 different from its WSPF will not be received at WIPP.

25 The Permittees will also verify that the three different types of data specified below are
26 available for every container holding TRU mixed waste before that waste is transported to
27 WIPP: 1) an assignment of the waste stream's waste description (by Waste Matrix Codes) and
28 Waste Matrix Code Group; 2) a determination of ignitability, reactivity, and corrosivity; and 3) a
29 determination of compatibility. The verification of waste stream description will be performed
30 by reviewing the WWIS for consistency in the waste stream description and WSPF. The
31 Waste Analysis Information Summary will indicate if the waste has been checked for the
32 characteristics of ignitability, corrosivity, and reactivity. The final verification of waste
33 compatibility will be performed using Appendix C1 of the WIPP Resource Conservation and
34 Recovery Act (RCRA) Part B Permit Application (DOE, 1997), the compatibility study.

35 Any container with unresolved discrepancies associated with hazardous waste analysis will
36 not be stored or disposed at the WIPP facility until the discrepancies are resolved. All
37 shipments of the subject waste stream will cease until the corrective action(s), as necessary,
38 have been implemented and the discrepancy resolved. The Permittees will notify NMED when
39 the certification status of a waste stream at a site is revoked. Waste analysis and certification
40 authority will not be reinstated until the site demonstrates all corrective actions have been
41 implemented and the program is reassessed by the Permittees.

1 ~~B7-1a(4) Data Review, Validation, and Verification Requirements at Permittee Level~~

2 The final level of data verification occurs at the Permittee level and must, at a minimum,
3 consist of reviewing a sample of the Batch Data Reports, during audits of the
4 generator/storage sites, to verify completeness. The Permittees are responsible, during audits
5 of the generator/storage sites and Permittee approved laboratories, for the verification that
6 Batch Data Reports include the following:

7 ~~● Project-level signature releases~~

8 ~~● Listing of all waste containers being presented in the report~~

9 ~~● Listing of all sampling, and analytical batch numbers associated with each~~
10 ~~waste container being reported in the package~~

11 ~~● Analytical Batch Data Report case narratives~~

12 ~~● Site Project Manager Summary~~

13 ~~● Data Validation Summary~~

14 ~~● Complete summarized qualitative and quantitative data for all waste containers with~~
15 ~~data flags and qualifiers.~~

16 For each WSPF submitted for approval, the Permittees must verify that each submittal (i.e., WSPF
17 and Waste Analysis Information Summary) is complete and notify the originating site in writing of the
18 WSPF approval. For subsequent shipments made after the initial WSPF approval, the verification will
19 also include WWIS internal limit checks (Section B7-1a(2)).

20 ~~B7-1a(5) Reconciliation at the Permittee Level~~

21 The Permittees must also assure that data of sufficient type, quality, and quantity are collected to
22 meet WAP Data Quality Objectives (DQOs). The Permittees will assure sufficient data have been
23 collected to determine if the waste analysis information is adequate to demonstrate the Permittee's
24 compliance with the HWFP. This is performed during Permittees' review of the WSPF and Waste
25 Analysis Information Summary.

26 ~~B7-1b Phase II: Waste Shipment Screening and Verification~~

27 Phase II of the waste shipment screening and verification process includes examination of a waste
28 shipment prior to placement into storage or disposal at the WIPP facility. In Phase II the Permittees
29 will determine: 1) the completeness and accuracy of the EPA Hazardous Waste Manifest; 2) land
30 disposal restriction notice completeness; and 3) waste shipment completeness and container
31 defects. In addition, as part of Phase II activities, the Permittees will perform waste examination
32 activities per Section B7-1b(4) and, as necessary, identify and resolve waste shipment irregularities.
33 Only those waste containers that pass all Phase II waste screening determinations will be eligible for

1 ~~storage or disposal at WIPP. For each container stored or disposed of at the WIPP facility, the~~
2 ~~Permittees shall assure that the generator/storage sites provide the following information:~~

3 ~~_____ Hazardous Waste Manifest Information:~~

4 ~~_____ C _____ Generator/storage site name and EPA ID~~

5 ~~_____ C _____ Generator/storage site contact name and phone number~~

6 ~~_____ C _____ Quantity of waste~~

7 ~~_____ C _____ List of the hazardous waste numbers in the shipment~~

8 ~~_____ C _____ Listing of all shipping container IDs (Shipping Package serial number)~~

9 ~~_____ C _____ Signature of authorized generator representative~~

10 ~~_____ Specific Waste Container information:~~

11 ~~_____ C _____ Waste stream identification number~~

12 ~~_____ C _____ List of hazardous waste numbers per container~~

13 ~~_____ C _____ Certification data~~

14 ~~_____ C _____ Shipping data (assembly numbers, ship date, shipping category, etc.)~~

15 ~~This information shall also be supplied electronically to the WWIS. The container-specific information~~
16 ~~will be supplied electronically as described in Section B7-1a(2), and shall be supplied prior to the~~
17 ~~Permittees' storage or disposal of the waste.~~

18 ~~The Permittees will verify each approved shipment upon receipt at WIPP against the data on the~~
19 ~~WWIS shipment summary report to assure containers have the required information. A Waste~~
20 ~~Receipt Checklist will be used to document the verification.~~

21 ~~B7-1b(1) Examination of the EPA Uniform Hazardous Waste Manifest and Associated Waste~~
22 ~~Tracking Information~~

23 ~~Upon receipt of a TRU mixed waste shipment, the Permittees will make a determination of EPA~~
24 ~~Uniform Hazardous Waste Manifest completeness and sign the manifest to allow the driver to~~
25 ~~depart. The Permittees will then make a determination of waste shipment completeness by checking~~
26 ~~the unique, bar-coded identification number found on each container holding TRU mixed waste~~
27 ~~against the WWIS.~~

28 ~~The WWIS links the bar-coded identification numbers of all containers in a specific waste shipment~~
29 ~~to the waste assembly (for 7-packs, 4-packs, and 3-packs) and to the shipment identification~~
30 ~~number, which is also written on the EPA Hazardous Waste Manifest. For shipments in the RH-TRU~~
31 ~~72B cask, only one payload container is bar-coded. For shipments in the CNS-10-160B cask, the~~

1 WWIS links the bar-coded identification numbers of all containers in a specific waste shipment to the
2 shipment identification number, which is also written on the EPA hazardous waste manifest.
3 Generators electronically transmit the waste shipment information to the WWIS before the TRU
4 mixed waste shipment is transported. Once a TRU mixed waste shipment arrives, the Permittees
5 verify the identity of each cask or container (or one container in a bound 7-pack, 4-pack, or 3-pack)
6 using the data already in the WWIS.

7 The WWIS will maintain waste container receipt and emplacement information provided by the
8 Permittees. It will include, among other items, the following information associated with each
9 container of TRU mixed waste:

- 10 ~~_____ C _____~~ Package inner containment vessel or shipping cask closure date
- 11 ~~_____ C _____~~ Package (container or canister) receipt date
- 12 ~~_____ C _____~~ Overpack identification number (if appropriate)
- 13 ~~_____ C _____~~ Package (container or canister) emplacement date
- 14 ~~_____ C _____~~ Package (container or canister) emplacement location

15 Manifest discrepancies may be identified during manifest examination, container bar-code WWIS
16 data comparison, or during waste examination on-site. A manifest discrepancy is a difference
17 between the quantity or type of hazardous waste designated on the manifest and the quantity or type
18 of hazardous waste the WIPP facility actually receives. The generator/storage site technical contact
19 (as listed on the manifest) will be contacted to resolve the manifest discrepancy. If the manifest
20 discrepancy is identified prior to the containers being removed from the package or shipping cask,
21 the waste will be retained in the parking area holding area. If the discrepancy is identified after the
22 waste containers are removed from the package or cask, the waste will be retained in a waste
23 holding area until the manifest discrepancy is resolved. If the discrepancy is identified after the waste
24 containers are removed from the package or cask, the waste will be retained in a waste staging area
25 until the manifest discrepancy is resolved. Errors on the manifest can be corrected by the WIPP
26 facility with a verbal (followed by a mandatory written) concurrence by the generator/storage site
27 technical contact. All manifest discrepancies that are unresolved within fifteen (15) days of receiving
28 the waste will be immediately reported to the NMED in writing. Notifications to the NMED will consist
29 of a letter describing the manifest discrepancies, discrepancy resolution, and a copy of the manifest.
30 If the Waste Isolation Pilot Plant manifest discrepancies have not been resolved within sixty (60)
31 days of waste receipt, the shipment will be returned to a generator/storage facility or another off-site
32 facility. If it becomes necessary to return waste containers to a generator/storage site, a new EPA
33 Uniform Hazardous Waste Manifest may be prepared by the Permittees.

34 Documentation of the returned containers will be recorded in the WWIS. Changes will be made to
35 the WWIS data to indicate the current status of the container(s). The reason for the WWIS data
36 change and the record of the WWIS data change will be maintained in the change log of the WWIS,
37 which will provide an auditable record of the returned shipment.

38 The Permittees will be responsible for the resolution of discrepancies, notification of the NMED, as
39 well as returning the original copy of the manifest to the generator/storage site.

1 B7-1b(2) Examination of the Land Disposal Restriction (LDR) Notice

2 TRU mixed waste designated by the Secretary of Energy for disposal at WIPP is exempt from the
3 LDRs by the Land Withdrawal Act Amendment (Public Law 104-201). This amendment states that
4 WIPP "Waste is exempted from treatment standards promulgated pursuant to section 3004(m) of the
5 Solid Waste Disposal Act (42 U.S. C. 6924(m)) and shall not be subjected to the Land Disposal
6 prohibitions in section 3004(d), (e), (f), and (g) of the Solid Waste Disposal Act." Therefore, with the
7 initial shipment of a TRU mixed waste stream, the generator shall provide the Permittees with a one
8 time written notice. The notice must include the information listed below:

9 Land Disposal Restriction Notice Information:

10 EPA Hazardous Waste Number(s) and Manifest Numbers of first shipment of
11 a mixed waste stream

12 Statement: this waste is not prohibited from land disposal

13 Date the waste is subject to prohibition

14 This information is the applicable information taken from column "268.7(a)(4)" of the "Generator
15 Paperwork Requirements Table" in 20.4.1.800 NMAG (incorporating 40 CFR 268.7(a)(4)). Note that
16 item "5" from the "Generator Paperwork Requirements Table" is not applicable since waste analysis
17 data are provided electronically via the WWIS and item "7" is not applicable since waste designated
18 by the Secretary of Energy for disposal at WIPP is exempted from the treatment standards.

19 The Permittees will review the LDR notice for accuracy and completeness. The generator will
20 prepare this notice in accordance with the applicable requirements of 20.4.1.800 NMAG
21 (incorporating 40 CFR §268.7(a)(4)).

22 B7-1b(3) Verification

23 The Permittees will determine whether there are any TRU mixed waste irregularities. The following
24 items will be inspected for each TRU mixed waste shipment arriving at the WIPP facility:

25 Whether the number and type of containers holding TRU mixed waste match the
26 information in the WWIS

27 Whether there are any container defects.

28 The Permittees will verify that the containers (as identified by their container ID numbers) are the
29 containers for which accepted data already exists in the WWIS. A check will be performed by the
30 Permittees comparing the data on the WWIS Shipment Summary Report for the shipment to the
31 actual shipping papers (including the EPA Hazardous Waste Manifest). This check also verifies that
32 the containers included in the shipment are those for which approved shipping data already exist in
33 the WWIS Transportation Data Module (Table B7-1). For standard waste boxes (SWBs) and ten
34 drum overpacks (TDOPs), this check will include comparing the barcode on the container with the
35 container number on the shipping papers and the data on the WWIS Shipment Summary Report. For
36 7-pack assemblies, one of the seven container barcodes will be read by the barcode reader and

1 compared to the assembly information for this container on the WWIS Shipment Summary Report.
2 This will automatically identify the remaining six containers in the assembly. This process enables
3 the Permittees to identify all of the containers in the assembly with minimum radiological exposure. If
4 all of the container IDs and the information on the shipping papers agree with the WWIS Shipment
5 Summary Report, and the shipment was examined by the Permittees per Section B7-1b(4) of the
6 WAP at an off-site facility, the containers will be approved for storage or disposal at the WIPP
7 facility.

8 B7-1b(4)a Permittees' Examination Confirmation of a Representative Subpopulation of the Waste

9 The Permittees shall ~~determine~~ confirm that the waste contains no ignitable, corrosive, or reactive
10 waste through radiography (Section B7-1b(5)b) or the use of visual examination (Section B7-1b(6)c)
11 of a statistically representative subpopulation of the waste. Waste ~~examination~~ confirmation will be
12 performed on randomly selected containers from each waste stream shipment of TRU mixed waste
13 prior to storage or disposal at WIPP. Both CH and RH TRU mixed waste will be verified and
14 ~~examined~~ confirmed at a generator/storage site before shipment to WIPP.

15 ~~The CH TRU mixed waste examination may will be performed either on-site after the shipment is~~
16 ~~received or at an off-site facility (e.g., generator/storage site) prior to receipt. Figure B7-31 presents~~
17 ~~the overall waste verification and ~~examination~~ confirmation process. Figure B7-42 presents the~~
18 ~~waste examination process at the generator /storage sites (or off-site facilities). Figure B7-5 presents~~
19 ~~the waste examination process at WIPP.~~

20 The Permittees' ~~examination of the waste~~ confirmation encompasses ~~verification~~ ensuring that the
21 physical characteristics of the TRU mixed waste correspond with its waste stream description and
22 that the waste does not contain liquids in excess of TSDF-WAC limits or compressed gases. These
23 techniques can detect liquids that exceed 1 percent volume of the container and containerized
24 gases, which are prohibited from storage or disposal at the WIPP facility. The prohibition of liquids
25 and containerized gases prevents the storage or disposal of ignitable, corrosive, or reactive wastes.
26 Radiography and/or visual examination will ~~assure~~ ensure that the physical form of the waste
27 matches its waste stream description (i.e., Homogeneous Solids, Soil/Gravel, or Debris Waste).
28 ~~Because containers of waste will not be opened at the WIPP site, visual examination at WIPP will be~~
29 ~~based on the Permittee' review of video and audio recordings by the generator/storage site of the~~
30 ~~visual examination of the waste, or by review of the generator's visual examination records (i.e.,~~
31 ~~visual examination data forms or packaging logs).~~ The results of the Permittees' waste ~~examination~~
32 confirmation activities, including radiography and visual examination records (data sheets,
33 packaging logs, and/or video and audio recordings) will be maintained in the WIPP facility operating
34 record. Noncompliant waste identified during waste ~~examination~~ confirmation will be managed as
35 described in Section B7-1b(9)2.

36 The Permittees shall randomly select 7 percent of each waste stream shipment for ~~examination~~
37 waste confirmation. This equates to a minimum of one container from each fourteen containers in
38 each waste stream in each designated shipment. If there are less than fourteen containers from a
39 waste stream in a particular shipment, a minimum of one container from the waste stream shipped
40 will be selected. If the random selection of containers in a shipment occurs prior to loading the waste
41 containers into the Shipping Package, the randomly selected containers may be consolidated into a
42 single Type B package consistent with transportation requirements. Documentation of the random

1 selection of containers for waste examination confirmation will be placed in the WIPP facility
2 operating record.

3 B7-1b(5)b Radiography Methods Requirements

4 Radiography has been developed by the Permittees specifically to aid in the examination and
5 identification of containerized waste. The Permittees shall describe all activities required to achieve
6 the radiography objectives in standard operating procedures (SOPs). These SOPs shall include
7 instructions specific to the radiography system(s) used by the Permittees either at the WIPP site or
8 at an off-site facility (e.g., the generator/storage site). For example, to detect liquids, some systems
9 require the container to be rotated back and forth while other systems require the container to be
10 tilted.

11 A radiography system (e.g., real time radiography, digital radiography/computed tomography)
12 normally consists of an X-ray-producing device, an imaging system, an enclosure for radiation
13 protection, a waste container handling system, a video and audio recording system, and an operator
14 control and data acquisition station. Although these six components are required, it is expected there
15 will be some variation within a given component between radiography systems. The radiography
16 system shall have controls or an equivalent process which allow the operator to control image
17 quality. On some radiography systems, it should be possible to vary the voltage, typically between
18 150 to 400 kilovolts (kV), to provide an optimum degree of penetration through the waste. For
19 example, high-density material should be examined with the X-ray device set on the maximum
20 voltage. This assures ensures maximum penetration through the waste container. Low-density
21 material should be examined at lower voltage settings to improve contrast and image definition. The
22 imaging system typically utilizes either a fluorescent screen and a low-light television camera or x-
23 ray detectors to generate the image.

24 To perform radiography, the waste container is scanned while the operator views the television
25 screen. A video and audio recording is made of the waste container scan and is maintained in the
26 WIPP facility operating record as a non-permanent record. A radiography data form is also used to
27 document the Waste Matrix Code, and assure ensure that the waste container contains no ignitable,
28 corrosive, or reactive waste by assuring documenting the absence of liquids in excess of TSDF-
29 WAC limits or compressed gases, and verify that the physical form of the waste is consistent with
30 the waste stream description documented on the WSPF. Containers whose contents prevent full
31 examination of the remaining contents shall be subject to visual examination unless the Permittees
32 certify that visual examination would provide no additional relevant information for that container
33 based on the acceptable knowledge information for the waste stream. Such certification shall be
34 documented in the WIPP facility operating record.

35 For containers which contain classified shapes and undergo radiography, the radiography will occur
36 at a facility with appropriate security provisions and the video and audio recording will be considered
37 classified. The radiography data forms will not be considered classified.

1 B7-1b(5)(i)b(1) Radiography Training

2 The radiography system involves qualitative and semiquantitative evaluations of visual displays.
3 Operator training and experience are the most important considerations for ~~assuring~~ **ensuring** quality
4 controls in regard to the operation of the radiography system and for interpretation and disposition of
5 radiography results. Only trained personnel shall be allowed to operate radiography equipment.

6 The Permittee radiography operators performing waste ~~examination~~ **confirmation** shall be trained in
7 accordance with the requirements of Permit Attachment H1.

8 B7-1b(5)(ii)b(2) Radiography Oversight

9 A training drum with internal containers of various sizes shall be scanned biannually by each
10 operator. The video and audio media shall then be reviewed by a supervisor to ~~assure~~ **ensure** that
11 operators' interpretations remain consistent and accurate. Imaging system characteristics shall be
12 verified on a routine basis.

13 Independent replicate scans and replicate observations of the video output of the radiography
14 process shall be performed under uniform conditions and procedures. Independent replicate scans
15 shall be performed on one waste container per day or once per shipment, whichever is less frequent.
16 Independent observations of one scan (not the replicate scan) shall also be made once per day or
17 once per shipment, whichever is less frequent, by a qualified radiography operator other than the
18 individual who performed the first examination.

19 The Permittees shall be responsible for monitoring the quality of the radiography data and calling for
20 corrective action, when necessary.

21 B7-1b(6)c Visual Examination Methods Requirements

22 Visual examination **(VE)** may also be used as a waste ~~examination~~ **confirmation** method by the
23 Permittees. ~~Visual examination VE~~ shall be conducted by the Permittees in accordance with written
24 ~~standard operating procedures~~ **SOPs** to describe the contents of a waste container. The description
25 shall **clearly** identify the **all** discernible waste items, residual materials, packaging materials, or waste
26 material parameters. ~~Visual examination VE~~ may be used by the Permittees to examine a
27 statistically representative subpopulation of the waste received at the WIPP to ~~assure~~ **confirm** that
28 the waste contains no ignitable, corrosive, or reactive waste. This is achieved by ~~assuring~~ **confirming**
29 that the waste contains no residual liquids in excess of TSDf-WAC limits or compressed gases, and
30 that the physical form of the waste matches the waste stream description documented on the WSPF.
31 A ~~visual examination~~ **VE** data form is used to document this information. During packaging, the
32 waste container contents are directly examined by trained personnel. This **form of** waste ~~examination~~
33 **confirmation** may be performed by the Permittees at the WIPP site or at an off-site facility, e.g., a
34 generator/storage site. The ~~visual examination~~ **VE** may be recorded on video and audio media, or
35 alternatively, by using a second operator to provide additional verification by reviewing the contents
36 of the waste container to ~~assure~~ **ensure** correct reporting.

37 ~~Because waste containers will not be opened at the WIPP site and~~ **In order** to keep radiation doses
38 as low as reasonably achievable at a generator/storage sites, **the Permittees may use their own**

1 ~~trained VE operators to perform VE~~ visual examination for waste ~~confirmation~~ examination may be
2 performed by reviewing, by trained Permittee visual examination operators, of video media prepared
3 by the generator/storage site during their ~~visual examination VE~~ of the waste. If the Permittees
4 perform waste ~~examination confirmation~~ by review of video media, the video record of the ~~visual~~
5 ~~examination VE~~ must be sufficiently complete for the Permittees to ~~assure confirm~~ the Waste Matrix
6 Code and waste stream description, and verify the waste contains no residual liquids in excess of
7 TSDf-WAC limits or compressed gases. ~~Generator/storage site VE video/audio media subject to~~
8 ~~review by the Permittees shall meet the following minimum requirements:~~

- 9 C The video/audio media shall record the waste packaging event for the container such
10 that all waste items placed into the container are recorded in sufficient detail that a
11 trained Permittee VE expert can determine what the waste items are and their
12 associated waste material parameter.
- 13 C The video/audio media shall capture the waste container identification number.
- 14 C The personnel loading the waste container shall be identified on the video/audio
15 media or on packaging records traceable to the loading of the waste container.
- 16 C The date of loading of the waste container will be recorded on the video/audio media
17 or on packaging records traceable to the loading of the waste container.

18 ~~The Permittees may also use their own trained VE operators to perform VE~~ Visual examination for
19 waste ~~confirmation~~ examination may also be performed by reviewing ~~VE~~, by trained Permittee visual
20 ~~examination operators~~, of ~~visual examination~~ data forms or packaging logs prepared by the
21 generator during their packaging of the waste. To be acceptable, the generator/storage site ~~visual~~
22 ~~examination VE~~ data must be signed by two generator/storage site personnel who witnessed the
23 packaging of the waste and must provide sufficient information for the Permittees to determine that
24 the waste container contents match the waste stream description on the WSPF and the waste
25 contains no liquids in excess of TSDf-WAC limits or compressed gases. The Permittees will
26 document their review of generator/storage site ~~visual examination VE~~ data on Permittee ~~visual~~
27 ~~examination VE~~ data forms. ~~Generator/storage site VE forms or packaging logs subject to review by~~
28 ~~the Permittees shall meet the following minimum requirements:~~

- 29 C At least two generator site personnel shall approve the data forms or packaging logs
30 attesting to the contents of the waste container.
- 31 C The data forms or packaging logs shall contain an inventory of waste items in
32 sufficient detail that a trained Permittee VE expert can identify the associated waste
33 material parameters.
- 34 C The waste container identification number shall be recorded on the data forms or
35 packaging logs.

36 ~~Visual examination VE~~ video media of containers which contain classified shapes shall be
37 considered classified information. ~~Visual examination VE~~ data forms will not be considered classified
38 information.

1 B7-1b(6)(i)c(1) Visual Examination Training

2 The Permittees' ~~VE visual examination~~ operators performing waste ~~examination confirmation~~ shall
3 be trained in accordance with the requirements of Permit Attachment H1.

4 B7-1b(6)(ii)c(2) Visual Examination Oversight

5 The Permittees shall designate a ~~visual examination~~ VE expert. The ~~visual examination~~ VE expert
6 shall be familiar with the waste generating processes that **have taken place at each site and with all**
7 **of the types of waste being characterized at each site where were used to generate the waste**
8 **streams will being examined confirmed using VE.** The ~~visual examination~~ VE expert shall be
9 responsible for the overall direction and implementation of the Permittee's' ~~VE visual examination~~
10 program. The Permittees shall specify the selection, qualification, and training requirements of the
11 visual examination expert **in an SOP.**

12 B7-1b(7)d Quality Assurance Objectives (QAOs) for Radiography and Visual Examination

13 The QAOs the Permittees must meet for radiography and visual examination are detailed in this
14 section. If the QAOs described below are not met, then corrective action **as specified in Permit**
15 **Attachment B3, Section B3-13** shall be taken.

16 B7-1b(7)(i)d(1) Radiography QAOs

17 The QAOs for radiography are detailed in this section. If the QAOs described below are not met,
18 then corrective action shall be taken.

19 Data to meet these objectives must be obtained from a video and audio recorded scan provided by
20 trained radiography operators. Results must also be recorded on a radiography data form. The
21 precision, accuracy, representativeness, completeness, and comparability objectives for radiography
22 data are presented below.

23 Precision

24 Precision is maintained by reconciling any discrepancies between two radiography operators with
25 regard to the waste stream waste ~~examination confirmation~~, identification of liquids in excess of
26 TSDf-WAC limits, and identification of compressed gases through independent replicate scans and
27 independent observations.

28 Accuracy

29 Accuracy is obtained by using a target to tune the image for maximum sharpness and by requiring
30 operators to successfully identify 100 percent of the required items in a training container during their
31 initial qualification and subsequent requalification.

1 Representativeness

2 Representativeness is ~~assured~~ **ensured** by performing radiography on a random sample of waste
3 containers from each waste stream in each shipment.

4 Completeness

5 A video and audio media recording of the radiography examination and a validated radiography data
6 form will be obtained for 100 percent of the waste containers subject to radiography.

7 Comparability

8 The comparability of radiography data from different operators shall be enhanced by using
9 standardized radiography procedures and operator qualifications.

10 ~~B7-1b(7)(ii)d(2)~~ Visual Examination QAOs

11 Results must be recorded on a ~~visual examination~~ **VE** data form. The precision, accuracy,
12 representativeness, completeness, and comparability objectives for ~~visual examination~~ **VE** data are
13 presented below.

14 Precision

15 Precision is maintained by reconciling any discrepancies between the operator and the independent
16 technical reviewer with regard to the waste stream waste ~~examination~~ **confirmation**, identification of
17 liquids in excess of TSDf-WAC limits, and identification of compressed gases.

18 Accuracy

19 Accuracy is maintained by requiring operators to pass a comprehensive examination and
20 demonstrate satisfactory performance in the presence of the VE expert during their initial
21 qualification and subsequent requalification.

22 Representativeness

23 Representativeness is ~~assured~~ **ensured** by performing ~~visual examination~~ **VE** on a random sample of
24 waste containers within each waste stream in each shipment.

25 Completeness

26 A validated ~~visual examination~~ **VE** data form will be obtained for 100 percent of the waste containers
27 subject to ~~visual examination~~ **VE**.

28 Comparability

29 The comparability of VE data from different operators shall be enhanced by using standardized VE
30 procedures and operator qualifications.

1 B7-1b(8)e Review and Validation of Radiography and Visual Examination Data Used for Waste
2 Examination

3 This section describes the requirements for review and validation of radiography and visual
4 examination VE data by the Permittees.

5 B7-1b(8)(i)e(1) Independent Technical Review

6 The radiography and/or ~~visual examination~~ VE confirmation data for each shipment shall receive an
7 independent technical review. This review will be performed before the affected waste shipment is
8 ~~stored or disposed of at~~ shipped to the WIPP facility. The review shall be performed by an individual
9 other than the data generator who is qualified to have performed the work. The review will be
10 performed in accordance with approved Permittee SOPs and will be documented on a review
11 checklist. The reviewer(s) must approve the data as evidenced by signature, and as a consequence,
12 ~~assure~~ ensure the following:

- 13 ● Data generation and reduction were conducted in a technically correct manner in
14 accordance with the methods used (procedure with revision). Data were reported in
15 the proper units and correct number of significant figures.
- 16 ● The data have been reviewed for transcription errors.
- 17 ● Radiography video and audio media recordings have been reviewed (independent
18 observation) on a waste container basis at a minimum of once per shipment or once
19 per day of operation, whichever is less frequent. The radiography video/audio
20 recording will be reviewed against the data reported on the radiography form to
21 ~~assure~~ ensure that the data are correct and complete.

22 B7-1b(8)(ii)e(2) Permittee Management Review

23 The radiography and/or visual examination data for each shipment shall receive a Permittee
24 management review. This review will be performed before the affected waste shipment is disposed
25 of at the WIPP. The review shall be performed by a designated member of Permittee management.
26 The review will be performed in accordance with approved Permittee SOPs and will be documented
27 on a review checklist. The reviewer(s) must approve the data as evidenced by signature, and as a
28 consequence, ~~assure~~ ensure the following:

- 29 ● The data are technically reasonable based on the technique used.
- 30 ● The data have received independent technical review.
- 31 ● The data indicate that the waste examined contained no ignitable, corrosive, or
32 reactive waste and that the physical form of the waste was consistent with the waste
33 stream description in the WSPF.
- 34 ● QC checks have been performed (e.g., replicate scans, image quality checks).

- The data meet the established QAOs

Upon completion of the Permittee management review, the waste examination confirmation data for the shipment shall be submitted to the WIPP facility operating record. Waste examination confirmation data includes; radiography and visual examination VE data forms, video/audio media, and review checklists.

B7-1b(9)2 Noncompliant Waste Identified During Waste Examination Confirmation

If the Permittees identify noncompliant waste during waste examination confirmation at a generator/storage site, the Permittees identify noncompliant waste (i.e., the waste does not match the waste stream description documented in the WSPF or there are liquids in excess of TSDF-WAC limits or compressed gases) the waste will not be shipped. Shipments of the affected waste stream will be suspended and will not resume until discrepancies have been satisfactorily resolved.

If during waste examination at WIPP the Permittees identify noncompliant waste, the Permittees will determine if this constitutes a manifest discrepancy and, if so, comply with the manifest discrepancy reporting requirements of Section B7-1b(1). When discrepancies relative to waste form or prohibited items cannot be resolved with the generator/storage sites, the entire shipment or the non-conforming portion of the shipment, will be returned to a generator/storage site or another off-site facility. The Permittees will suspend further shipments of the affected waste stream and issue a CAR to the generator/storage site. Shipments of the affected waste stream shall not resume until the CAR has been closed. The NMED will be notified within 24 hours of any suspension of waste stream shipments due to the identification of nonconforming waste during waste examination confirmation. The Permittees may, at their discretion, continue to examine all containers in the waste stream shipment and dispose of the conforming containers.

As part of the corrective action plan in response to the CAR, the generator/storage site will evaluate whether the waste analysis characterization information documented in the Waste Analysis Characterization Information Summary and/or WSPF for the waste stream must be updated because the results of waste examination confirmation for the waste stream indicated that the TRU mixed waste being examined did not match the waste stream description. If the Waste Analysis Characterization Information Summary and/or WSPF requires revision, shipments of the affected waste stream shall not resume until the revised waste stream waste analysis characterization information has been reviewed and approved by the Permittees. Waste streams that have discrepancies that cannot be resolved will be returned to a generator/storage site. Repeated nonconformances by a site in implementing and documenting WAP requirements (Permit Attachment B) will result in the termination of 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.

B7-2 Waste Shipment Screening QA/QC

Waste shipment screening QA/QC assures that TRU mixed waste received is that which has been approved for shipment during the Phase I and II screening. This is accomplished by maintaining QA/QC control of the waste shipment screening process. The screening process will be controlled by administrative processes which will generate records documenting waste receipt that will become

1 part of the waste receipt record. The waste receipt record documents that container identifications
2 correspond to shipping information and approved TRU mixed waste streams. The Permittees will
3 extend QA/QC practices to the management of all records associated with waste shipment
4 screening determinations.

5 B7-3 Permittees' Corrective Action Process

6 The Permittees shall initiate a corrective action process when internal nonconformances and
7 nonconformances at the generator/storage sites are identified. Activities and processes that do not
8 meet requirements are documented as deficiencies.

9 When a deficiency is identified by the Permittees, the following process action steps are required:

- 10 ● The condition is documented on a Corrective Action Report (**CAR**) by the individual
11 identifying the problem.
- 12 ● The Permittees have designated the CAR Initiator and Assessment Team Leader to
13 review the CAR, determine validity of the finding (determine that a requirement has
14 been violated), classify the significance of the condition, assign a response due date,
15 and issue the CAR to the responsible party.
- 16 ● The responsible organization reviews the CAR, evaluates the extent and cause of the
17 deficiency and provides a response to the Permittees, indicating remedial actions and
18 actions to preclude recurrence that will be taken.
- 19 ● The Permittees review the response from the responsible organization and, if
20 acceptable, communicate the acceptance to the responsible organization.
- 21 ● The responsible organization completes remedial actions and actions to preclude
22 recurrence of the condition.
- 23 ● After all corrective actions have been completed, the Permittees schedule and
24 perform a verification to assure that corrective actions have been completed and are
25 effective. When all actions have been completed and verified as being effective, the
26 CAR is closed by the CAR Initiator and Assessment Team Leader on behalf of the
27 Permittees.
- 28 ● As part of the planning process for subsequent audits and surveillances, past
29 deficiencies are reviewed and the previous deficient activity or process is subject to
30 reassessment.

31 B7-4 Records Management and Reporting

32 As part of the WIPP facility's operating record, data and documents associated with waste analysis
33 and examination data are managed in accordance with standard records management practices.
34 All waste analysis data for each TRU mixed waste container transmitted to WIPP and generated by
35 the Permittees shall be maintained by the Permittees for the active life of the WIPP facility plus two

1 years. The active life of the WIPP facility is defined as the period from the initial receipt of TRU
2 mixed waste at the facility until NMED receives certification of final closure of the facility. After their
3 active life, the records shall be retired to the Federal Records Center and maintained for 30 years.
4 These records will then be offered to the National Archives. However, this disposition requirement
5 does not preclude the inclusion of these records in the permanent marker system or other
6 requirements for institutional control.

7 The storage of the Permittees' copy of the manifest, LDR information, waste analysis data, WSPFs,
8 waste examination activities, and other related records will be identified on the appropriate records
9 inventory and disposition schedule.

10 Waste analysis and waste examination data and documents are part of the WIPP facility operating
11 record are managed in accordance with the following guidelines:

12 B7-4a General Requirements

- 13 ~~_____ C _____~~ Records shall be legible
- 14 ~~_____ C _____~~ Corrections shall be made with a single line through the incorrect information, and the
15 date and initial of the person making the correction shall be added
- 16 ~~_____ C _____~~ Black ink is encouraged, unless a copy test has been conducted to assure the other
17 color ink will copy
- 18 ~~_____ C _____~~ Use of highlighters on records is discouraged
- 19 ~~_____ C _____~~ Records shall be reviewed for completeness
- 20 ~~_____ C _____~~ Records shall be validated by the cognizant manager or designee

21 B7-4b Records Storage

- 22 ~~_____ C _____~~ Active records shall be stored when not in use
- 23 ~~_____ C _____~~ Quality records shall be kept in a one-hour (certified) fire-rated container or a copy of
24 a record shall be stored separately (sufficiently remote from the original) in order to
25 prevent destruction of both copies as a result of a single event such as fire or natural
26 disaster
- 27 ~~_____ C _____~~ Unauthorized access to the records is controlled by locking the storage container or
28 controlling personnel access to the storage area

29 The following records will be maintained for waste analysis purposes as part of the WIPP facility
30 operating record:

- 31 ~~_____ C _____~~ Completed WIPP WSPFs and accompanying Waste Analysis Information Summary,
32 including individual container data as transferred on the WWIS (or received as hard-
33 copy) and any discrepancy-related documentation as specified in Section B7-1a(3).
- 34 ~~_____ C _____~~ Radiography and visual examination records (data sheets, packaging logs, and video
35 and audio recordings) of waste examination activities
- 36 ~~_____ C _____~~ Completed Waste Receipt Checklists and discrepancy-related documentation as
37 specified in Section B7-1b.

- 1 ~~C~~ ~~WIPP WWIS Waste Emplacement Report as specified in Section B7-1a(2)~~
- 2 ~~C~~ ~~Audit reports and corrective action reports from the Permittees' Audit and Surveillance~~
3 ~~Program audits as specified in Section B7-1a(1) and Permit Attachment B6~~
- 4 ~~C~~ ~~CARs and closure information for corrective actions taken due to nonconforming~~
5 ~~waste being identified during waste examination by the Permittees~~

6 These records will be maintained for each TRU mixed waste managed at the WIPP facility.

7 **B7-5 Reporting**

8 ~~The Permittees will provide a biennial report in accordance with 20.4.1.500 NMAC (incorporating 40~~
9 ~~GFR §264.75) to NMED that includes information on actual volume and waste descriptions received~~
10 ~~for disposal during the time period covered by the report.~~

11 **B7-6 List of References**

12 ~~U.S. Department of Energy (DOE), 2001, "WIPP Waste Information System User's Manual for Use~~
13 ~~by Shippers/Generators", DOE/CAO 97-2273, U.S. Department of Energy.~~

14 ~~U.S. Department of Energy (DOE), 1997, Resource Conservation and Recovery Act Part B Permit~~
15 ~~Application for the Waste Isolation Pilot Plant", Revision 6.5, U.S. Department of Energy.~~

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1

TABLES

1

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TABLE B7-1
WIPP WASTE INFORMATION SYSTEM DATA FIELDS^a

| Characterization Module Data Fields ^b | |
|--|--|
| Container ID ^c | Total VOC Sample Date ^e |
| Generator EPA ID | Total VOC Analysis Date ^e |
| Generator Address | Total VOC Analyte Name ^{d,e} |
| Generator Name | Total VOC Analyte Concentration ^{d,e} |
| Generator Contact | Total Metal Sample Date ^e |
| Hazardous Code Number | Total Metal Analysis Date ^e |
| Headspace Gas Sample Date | Total Metal Analyte Name ^{d,e} |
| Headspace Gas Analysis Date | Total Metal Analyte Concentration ^{d,e} |
| Layers of Packaging | Semi-VOC Sample Date ^e |
| Liner Exists | Semi-VOC Analysis Date ^e |
| Liner Hole Size | Semi-VOC Analyte Name ^{d,e} |
| Filter Model | Semi-VOC Concentration ^{d,e} |
| Number of Filters Installed | Transporter EPA ID |
| Headspace Gas Analyte ^{d,e} | Transporter Name |
| Headspace Gas Concentration ^{d,e} | Visual Exam Container |
| Headspace Gas Char. Method ^{d,e} | Waste Material Parameter ^d |
| Total VOC Char. Method ^{d,e} | Waste Material Weight ^d |
| Total Metals Char. Method ^{d,e} | Waste Matrix Code |
| Total Semi-VOC Char. Method ^{d,e} | Waste Matrix Code Group |
| Item Description Code | Waste Stream Profile Number |
| Haz. Manifest Number | |
| NDE Complete ^f | |
| Certification Module Data Fields | |
| Container ID ^c | Handling Code |
| Container type | |
| Container Weight | |
| Contact Dose Rate | |
| Container Certification date | |
| Container Closure Date | |
| Transportation Data Module | |
| Shipping Package Number | Ship Date |
| Assembly Number ^g | Receive Date |
| Container IDs ^{c,d} | |
| ICV Closure Date | |
| Disposal Module Data | |
| Container ID ^c | |
| Disposal Date | |
| Disposal Location | |

^a-This is not a complete list of the WWIS data fields.

^b-Some of the fields required for waste analysis are also required for certification and/or transportation.

- 1 ~~°-Container ID is the main relational field in the WWIS Database.~~
- 2 ~~°-This is a multiple-occurring field for each analyte, nuclide, etc.~~
- 3 ~~°-This is only reported for containers sampled~~
- 4 ~~°-These are logical fields requiring only a yes/no.~~
- 5 ~~°-Required for 7 packs of 55-gal drums, 4 packs of 85-gal drums, or 3 packs of 100-gal drums to tie all of the drums in that~~
- 6 ~~assembly together. This facilitates the identification of waste containers in a shipment without need to breakup the~~
- 7 ~~assembly.~~

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FIGURES

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Figure B7-1
Waste Confirmation Process

Figure B7-2
Waste Confirmation at an Offsite Facility