Comments of the U.S. Department of Energy and Washington TRU Solutions, LLC, Regarding the NMED's Intent to Approve a Class 3 Permit Modification Request Pursuant to Public Notice 05-16

Introduction

On November 23, 2005, the New Mexico Environment Department (NMED) issued Public Notice No. 05-16 stating that it intends to approve a Class 3 modification to the Hazardous Waste Facility Permit (HWFP) for the Waste Isolation Pilot Plant (WIPP), EPA ID No. NM4890139088. NMED also issued a Fact Sheet setting out the basis for the draft Permit. The Permittees generally support the draft Permit, and with these comments, propose alternative text. Text to be included in the draft Permit not only promotes safe, efficient operations at waste generator/storage sites and at the WIPP, but also increases NMED oversight.

Overview

I. Confirmation at the WIPP

In issuing the draft Permit, NMED generally approved the Permittees' proposal to perform confirmation on a statistically representative subpopulation of waste that is shipped to WIPP. NMED also concluded that the Waste Analysis Plan (WAP) changes proposed by the Permittees in their June 10, 2005, PMR, including the Section 311 waste confirmation process are technically defensible and protective of human health and the environment. The Permittees agree with this conclusion.

However, the NMED disapproved the Permittees' proposal to perform confirmation activities at the WIPP. NMED stated as follows:

> "The Permittees have not adequately explained how they will return or otherwise transport off-site any shipments that contain a nonconforming waste." November 23, 2005, Fact Sheet, page 7 of 9.

NMED's disapproval of the Permittees' proposal to perform confirmation activities at the WIPP also stated:

> "The Permittees' statement that if non-compliant waste is detected during waste confirmation activities at WIPP, the Permittees will return the entire shipment or the nonconforming portion of the shipment to a generator or another off-site facility does not provide the procedural detail necessary for NMED to approve waste confirmation at WIPP at this time." November 23, 2005, Fact Sheet, page 7 of 9.

The Permittees wish to emphasize that existing NMED regulations anticipate that a hazardous waste facility will evaluate waste received for compliance with the Permit, and if necessary return nonconforming waste to the generator. For example, the WIPP HWFP allows the return of nonconforming waste, as follows:

> "If a primary waste container is not in good condition, the Permittees will overpack the container, repair/patch the container in accordance with 49 CFR §173 and §178 (e.g., 49 CFR §173.28), or return the container to the generator," WIPP HWFP, Section M1-1d(2), Attachment M1, page M1-10 (emphasis added).

Also, the NMED has issued other permits that provide for the return of nonconforming waste to generators.[1]

To fully respond to NMED comments regarding the need to clarify procedures for addressing nonconforming waste, the Permittees are providing information in these comments to demonstrate that they have the capability to return prohibited items in compliance with Nuclear Regulatory Commission (NRC) requirements in the event that a prohibited item is discovered at WIPP.

Permittees have the following options for return of prohibited items discovered during confirmation activities at the WIPP.

1. The current NRC Certificates of Compliance (CofCs) for TRUPACT-II and HalfPACT can allow shipment of certain prohibited items and the Permittees note that the requirements for compliance with the current NRC CofCs for TRUPACT-II and HalfPACT are not impacted by the PMR. For example, a liquid prohibited from disposal by Permit Condition II.C.3.a. of the WIPP HWFP may be shippable in compliance with the current CofCs.

2. Permittees also can seek limited amendment of CofCs on a case-by-case basis and based on past experience, anticipate timely NRC action on such request. For example, NRC has approved drawing changes in as little as 12 days (TRUPACT-II CofC, Rev. 12, March 27, 2002).

3. NRC regulations also provide for specific exemptions on a case-by-case basis.[2] Holding a container with liquids or aerosol cans for a limited time at WIPP while the request for a limited amendment of a CofC, or exemption, was processed would not pose a threat to human health or the environment.

Permittees are also developing ongoing enhancements to the portfolio of shipping packages for transport of transuranic (TRU) waste to address future changes in such features as container overpacks and the size of packages.

In the attached Comment matrix, the Permittees propose permit text to HWFP Attachment B7 that sets forth the procedural steps the Permittees will follow if a prohibited item were to be identified during confirmation activities at the WIPP. Figure 1, *Flowchart of Procedural Steps for Return of Prohibited Items*, is shown below.

[1] Triassic Park Facility, Permit No. NM0001002484, March 2002 – "waste will either be returned to the sender or disposed at an appropriate permitted facility"; Rinchem Facility, Permit No. NMD002208627, December 2001 - "Wastes found to be in non-conformance shall be rejected on the spot or they may be reevaluated for possible acceptance by the Facility despite the variance;" and, Holloman Air Force Base (Defense Reuse and Marketing Office), Permit No. NM657212442, February 2004 – "If the information on the container label does not match the information on the turn-in documents or if the container is not in good condition (e.g., rusted, dented), DRMO personnel shall refuse to accept the waste…".

[2] 10 CFR §71.12 – Specific Exemptions, "…the Commission may grant an exemption from the requirements of the regulations in this part that it determines is authorized by law and will not endanger life or property nor common defense and security."

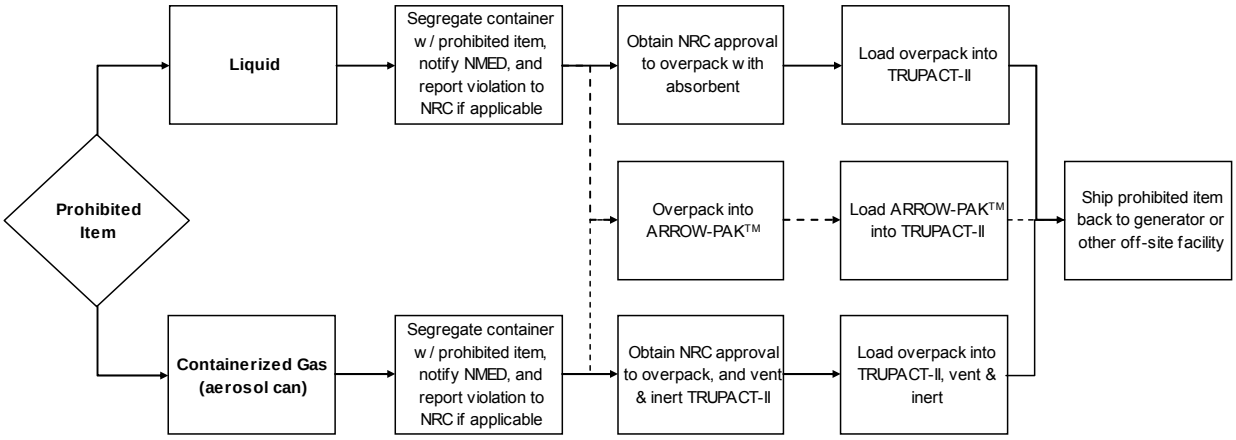


Figure 1 – Flowchart of Procedural Steps for Return of Prohibited Items

For the reasons set forth herein, Permittees propose that confirmation activities at the WIPP, as proposed in Permittees' June 10, 2005, PMR be approved by NMED and incorporated into the draft Permit. Approximately two-thirds of the Comments below are associated with restoring confirmation activities at the WIPP in the draft Permit.

A significant consequence of NMED's disapproval of confirmation activities at the WIPP in the November 23, 2005, draft Permit is the reduction in needed storage capacity. In disapproving confirmation at WIPP, NMED did not include the capacity of the holding areas proposed by the Permittees in the waste management capacity reflected in the draft Permit. With these comments, the Permittees are seeking to retain the total proposed capacity in the Waste Handling Building, either as storage or as a combination of storage and holding areas. The comments attached re-establish this capacity as a combination of storage and holding areas (see proposed revisions to Table III.A.1, Table III.A.2, Table A-1 and Table A-2 in the attached comment matrix).

II. Radiography/Visual Examination Requirements

In the Permittees' PMR, radiography and visual examination methods applicable to the generator/storage sites were proposed for deletion from the HWFP. In summary, the Permittees proposed to perform radiography or visual examination of at least seven percent of each waste stream in each shipment to WIPP for purposes of confirmation. The containers are proposed to be selected randomly in order to assure they are representative of the subpopulation of waste being examined. This Permittee confirmation would be sufficient to detect problems with the generator/storage site's characterization of the waste related to physical form or prohibited items and therefore be compliant with the requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.13, General Waste Analysis Requirements). Any noncompliant waste discovered during the Permittees' confirmation activities would result in suspension of shipments of the affected waste stream to WIPP and trigger a corrective action process. For this reason, specific radiography and visual examination methods, with their attendant data validation regimes, were no longer required to be imposed on the generator/storage sites through the WIPP HWFP. The Permittees still believe that it is unnecessary for NMED to impose radiography and visual examination method requirements on the generator/storage sites.

Also in the PMR, the Permittees acknowledged that there may be times when a generator/storage site will be required to use radiography or visual examination methods. In particular, when the generator/storage site has insufficient acceptable knowledge (AK) information to segregate containers into waste streams or to ensure that there are no prohibited items in the waste, examination of the waste will be necessary. The Permittees proposed that these methods would be

examined by the Permittees for adequacy; however, the specifics of implementation would be left to the generator/storage site.

However, if NMED believes it is necessary to include these methods, the Permittees request that several changes be incorporated into the draft Permit. Specifically, the Permittees should be allowed to use radiography scans recorded by the generator/storage sites to perform the confirmation activities. If the scan was produced under a WIPP HWFP-specified protocol, there is no reason for the Permittees to actually re-radiograph the container. Also, the Permittees propose to eliminate the requirements for independent replicate scans and independent observations from the generator/storage site radiography method. Because the Permittees will be independently reviewing generator/storage site radiography scans during the confirmation process, there is no need to include the requirement for independent replicate scans and observations in the Final Permit.

III. NMED-Proposed Alternative Dispute Resolution Procedure

In the draft Permit, NMED has included a dispute resolution process that will be used to resolve disputes concerning AK Sufficiency Determination Requests and audit determinations. In general, the Permittees support the proposed dispute resolution process and have proposed language changes that clarify the proposed procedure and ensure consistency with state laws and other provisions of existing applicable NMED regulations. The specific proposed changes are included in the comments below.

IV. Miscellaneous Proposed Changes to the Draft Permit

The Permittees have proposed changes to assure that the terms "confirmation" and "verification" are used consistently throughout the draft Permit. In addition, the Permittees have identified typographical and editorial changes that should be incorporated. In several places, the Permittees are clarifying language proposed by the Permittees in the PMR, such as the size and use of the RH Facility Canister.

Comments

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
I.D.11.	I-4		On the second line, "storage sites" has been added after "generator" because characterization activities for some waste streams may occur at storage sites rather than generator sites. The proposed definition is consistent with 20.4.1.500 NMAC (incorporating 40 CFR §264.13(a)(2)), which states that a TSDF facility, such as WIPP, uses the information provided by a generator or storage site to satisfy the waste analysis requirements. The final sentence should state that characterization occurs before "waste streams have been approved" for disposal at WIPP, instead of "waste containers have been certified." The HWFP and the draft Permit consistently state that characterization requirements are specified on a waste stream basis. See Attachment B at pages B-3, B-5, B-8.	"Waste characterization" or "characterization" means the activities performed by the waste generator/storage sites to obtain information used by the Permittees to satisfy the general waste analysis requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.13(a)), which can be met by applying acceptable knowledge, conducting sampling and analysis, or a combination of both. Characterization occurs before waste streams ~~containers~~ have been approved ~~certified~~ for disposal at WIPP.
I.D.12.	I-4		In general, the Permittees concur with the definition of "waste confirmation" proposed by NMED. The proposed additions are consistent with the regulatory requirements, with the use of confirmation in the draft Permit and with the changes proposed by the Permittees to the draft Permit. In other comments that follow, the Permittees have proposed language that clarifies that waste confirmation may include the review of radiography scans performed by the generator/storage sites if these scans are performed in accordance to the WIPP WAP. In other comments that follow, the Permittees have proposed language so that the application of the definition is consistent throughout the Permit.	"Waste confirmation" or "confirmation" means the 20.4.1.500 NMAC (incorporating 40 CFR §264.13) activities performed by the Permittees to satisfy the waste analysis requirements specified in Section 311 of Pub. L. 108-137. Confirmation occurs after waste containers have been certified for disposal at WIPP.
I.D.14.	I-4		Restored definitions as proposed for when waste is received at WIPP.	Waste Receipt Waste receipt is defined as the time incoming waste shipments reach the WIPP facility and the Permittees assume control of the shipment from the transporter by signing the manifest.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
I.D.15.	I-4		Restored definitions as proposed for holding areas at WIPP.	Holding Areas Holding Areas are defined as portions of the WIPP facility that are designated in the HWFP for processing of confirmed waste or unconfirmed waste pending completion of the Permittees' confirmation activities as described in Permit Attachment B7. Waste may be held in holding areas for ten (10) days from the date of receipt. Non-compliant waste may be held in holding areas for sixty (60) days from the date the non-compliance was discovered.
I.K.2.	I-12		The Permittees support the inclusion of a dispute resolution process in the Permit for purposes of resolving disputes concerning AK Sufficiency Determination Requests and audit determinations by the NMED. The Permittees have proposed language changes in several locations that clarify the proposed Dispute Resolution procedure. The proposed change to Section I.K.2. clarifies that the time period for invoking the dispute resolution procedure begins running when the Permittees receive a written determination from NMED and is twenty calendar days in length to allow the Permittees sufficient time to compile the necessary documentation.	To invoke dispute resolution, the Permittees shall notify NMED in writing within ~~seven (7)~~ twenty (20) calendar days of receipt of an NMED written determination ~~in dispute~~. Such notice shall be sent to the Hazardous Waste Bureau Chief and must set forth the specific matters in dispute, the position the Permittees assert should be adopted, a detailed explanation for the Permittees' position, and any other matters considered necessary for the dispute resolution. For AK Sufficiency Determination disputes, the Permittees shall submit all factual data, analysis, opinion, and other documentation upon which they relied for their provisional approval, and any other information that supports their position. NMED shall acknowledge receipt of notification by e-mail sent to the Permittees' representative as designated in their written notification.
I.K.3.	I-12		The proposed changes to Section I.K.3. clarify that, if the agreed upon course of action is a revised submittal, such submittal will be made within any agreed upon timeframe. The Permittees also propose language clarifying that, if no agreement is reached within 30 days, the Tier I negotiations will be considered final. Also, use of mediation is presented as an option.	The Permittees and NMED shall make all reasonable, good faith efforts to informally resolve disputes related to NMED's determination. The Permittees and NMED shall meet or teleconference within fifteen (15) calendar days from NMED's receipt of notification to commence negotiations to resolve the dispute. The Permittees and NMED shall have thirty (30) calendar days from NMED's receipt of notification to resolve the dispute. In the event agreement is reached, the Permittees shall comply with the terms of such agreement or, if appropriate, submit a revised submittal ~~and implement the same in accordance with, and~~ within the time frame specified in such agreement. In the event no written agreement is reached within thirty (30) calendar days of NMED's receipt of notification, the Tier I Informal Negotiations shall be

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				considered final with no agreement reached unless an extension is agreed upon in writing by Permittees and NMED. As part of the Tier 1 – Informal Negotiations, the Permittees and NMED may engage in mediation with a third-party mediator if both agree. Permittees and NMED may agree in writing to extensions to conduct mediation.
I.K.4.	I-12		The proposed changes to Section I.K.4. provide the Permittees and NMED with the opportunity to provide the Secretary with technical presentations at the Secretary's discretion. The Permittees believe that such presentations could be beneficial in helping the Secretary reach a timely decision on the disputed matters. The proposed changes also clarify that the Secretary will make a final decision within 30 days unless the time is extended by the Secretary in writing. Finally, the Permittees propose revisions that clarify that the Secretary's decision constitutes the final decision by NMED.	In the event agreement is not reached within the thirty (30) calendar day period, the Permittees may submit a written Request for Final Decision to the Secretary. The Request must be submitted within five (5) calendar days of the end of Tier I Informal Negotiation period. The Permittees may request the Secretary convene a meeting in which Permittees and NMED may provide technical presentations. Granting such a meeting is discretionary with the Secretary. Within thirty (30) days of receipt of the Request for Final Decision by the Secretary, unless extended by the Secretary in writing, the Secretary will notify the Permittees ~~in writing~~ of the decision on the dispute.~~, and the Permittees shall comply with the terms and conditions of the decision.~~ Such decision ~~shall be an enforceable order under this Permit the final resolution of the dispute and~~ shall be the final decision on the determination by the Secretary that is the subject of the dispute. ~~The Permittees shall implement the determination in accordance with, and within the time frame specified in, such decision~~.
II.C.1.	II-1		Clarified usage of term.	The Permittees shall not manage, store, or dispose TRU mixed waste at WIPP which fails to meet the waste characterization requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.13)~~,~~ as specified by this Permit.
II.C.1.c.	II-2		Removed references to statistical methods for visual examination and control charting since they have been removed from Attachment B2 in the draft Permit.	Statistical Methods used in sampling and analysis – The Permittees shall require that generator/storage sites use the methods for statistically selecting retrievably stored and newly-generated TRU mixed waste containers for ~~visual examination and~~ volatile organic compounds (**VOCs**), semivolatile organic compounds (**SVOCs**) and total metals analysis, and establishing upper confidence limits, ~~and when demonstrated appropriate, control charting for newly generated waste stream sampling~~ as

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				specified in Permit Attachment B2 (Statistical Methods Used in Sampling and Analysis).
II.C.1.e.	II-3		Proposed changes have been made because the generator/storage sites do not verify acceptable knowledge - that activity is now a Permittee function.	Acceptable knowledge - the Permittees shall require generator/storage sites to assemble acceptable knowledge documentation ~~and verify acceptable knowledge determinations,~~ and shall audit (as specified in Permit Condition II.C.2.) all aspects of the acceptable knowledge waste characterization process as specified in Permit Attachment B4 (TRU Mixed Waste Characterization Using Acceptable Knowledge).
II.C.1.g.	II-3		Restored language which allows confirmation activities to be performed at WIPP.	WIPP Waste Information System (**WWIS**) database - the Permittees shall provide the Secretary access to the WWIS database as necessary to determine compliance with the WAP. The WWIS shall meet all requirements presented in Section B-4b(1)(i) of the WAP, Permit Attachment B, prior to ~~acceptance~~ storage or disposal of TRU mixed waste at WIPP. The Secretary's access to the WWIS shall be direct, read-only (via modem or Internet) to all query and reporting functions of the Characterization, Certification, Shipping, and Inventory modules of the WWIS database.
II.C.2.a.	II-4		Corrected reference to B-5a(3).	Requirement to audit - the Permittees shall demonstrate to the Secretary that the generator/storage sites and Permittee approved laboratories have implemented and comply with applicable requirements of the WAP by conducting audits as specified in Permit Attachment B, Section ~~B-4b(1)(iii),~~ B-5a(3), and Permit Attachment B6 (Waste Isolation Pilot Plant Permittees' Audit and Surveillance Program), and as required by 20.4.1.500 NMAC (incorporating 40 CFR §264.13).
II.C.3.	II-4		Restored language which allows confirmation activities to be performed at WIPP.	The Permittees shall not accept TRU mixed wastes at WIPP for storage~~, management,~~ or disposal which fail to meet the treatment, storage, and disposal facility waste acceptance criteria as presented in Permit Conditions II.C.3.a. through ~~II.C. 3.k~~ II.C.3.j. of this Permit.
II.C.3.a.	II-5		Restored language which allows confirmation activities to be performed at WIPP.	Liquids - liquid waste is not acceptable for storage or disposal at the WIPP. Waste shall contain as little residual liquid as is reasonably achievable by pouring, pumping and/or aspirating, and internal containers shall contain less than 1 inch or 2.5 centimeters

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				of liquid in the bottom of the container. Total residual liquid in any payload container (e.g., 55-gallon drum, standard waste box, etc.) may not exceed 1 percent volume of that container.
II.C.3.b.	II-5		Restored language which allows confirmation activities to be performed at WIPP.	Pyrophoric materials - non-radionuclide pyrophoric materials, such as elemental potassium, are not acceptable for storage or disposal at the WIPP.
II.C.3.c.	II-5		Restored language which allows confirmation activities to be performed at WIPP.	Non-mixed hazardous wastes - hazardous wastes not occurring as co-contaminants with TRU wastes (non-mixed hazardous wastes) are not acceptable for storage or disposal at the WIPP.
II.C.3.d.	II-5		Restored language which allows confirmation activities to be performed at WIPP.	Chemical incompatibility - wastes incompatible with backfill, seal and panel closures materials, container and packaging materials, shipping container materials, or other wastes are not acceptable for storage or disposal at the WIPP.
II.C.3.e.	II-5		Restored language which allows confirmation activities to be performed at WIPP.	Explosives and compressed gases - wastes containing explosives or compressed gases are not acceptable for storage or disposal at the WIPP.
II.C.3.f.	II-5		Restored language which allows confirmation activities to be performed at WIPP.	PCB waste - wastes with polychlorinated biphenyls (**PCBs**) not authorized under an EPA PCB waste disposal authorization are not acceptable for storage or disposal at the WIPP.
II.C.3.g.	II-5		Restored language which allows confirmation activities to be performed at WIPP.	Ignitable, corrosive, and reactive wastes - wastes exhibiting the characteristic of ignitability, corrosivity, or reactivity (EPA Hazardous Waste Numbers of D001, D002, or D003) are not acceptable for storage or disposal at the WIPP.
II.C.3.i.	II-5		Restored language which allows confirmation activities to be performed at WIPP and correct numbering sequence of Permit Condition. Also change Table II.C.3.i to Table II.C.3.h.	II.C.3.~~i~~h. Excluded Waste - TRU mixed waste that has ever been managed as high-level waste and waste from tanks specified in Permit Attachment B are not acceptable for storage or disposal at the WIPP unless specifically approved through a Class 3 permit modification. Such wastes are listed in Table II.C.3.h~~i~~. below.
II.C.3.k.	II-6		Restored language which allows confirmation activities to be performed at WIPP and correct numbering sequence of Permit Condition.	II.C.3.~~k~~i. Radiographic / visual examination - any waste container from a waste stream (or waste stream lot) which has not undergone either radiographic or visual examination of a statistically representative subpopulation of the waste as described in Permit Attachment B7, is not acceptable for storage or disposal at the WIPP.
II.C.3.l.	II-6		Restored language which allows confirmation activities to be performed at WIPP and correct numbering sequence of Permit Condition.	II.C.3.~~l~~j. Waste stream profiles - any waste container from a waste stream which has not been preceded by an appropriate, certified Waste Stream Profile Form (Attachment B, Figure B-1) is not

<table>
<tr><th>Att/Module and Section</th><th>Page</th><th>Line</th><th>Comment</th><th>Proposed Change to Draft Permit</th></tr>
<tr><td></td><td></td><td></td><td></td><td>acceptable for storage or disposal at the WIPP.</td></tr>
<tr><td>III.A.1.b.</td><td>III-1</td><td></td><td>Revised the number of storage areas at WIPP.</td><td>Storage locations and quantities - the Permittees may store TRU mixed waste containers in ~~nine (9)~~ eight (8) locations in the WHB Unit, as specified in Table III.A.1 below and depicted in Permit Attachment M1, Figures M1-1 and M1-17 a, b, and c. The Permittees may store quantities of TRU mixed waste containers in these locations not to exceed the maximum capacities specified in Table III.A.1 below.</td></tr>
<tr><td>III.A.1.c</td><td>III-2</td><td></td><td>Revised Permit condition to reflect that waste may be “held” as well as stored on facility or containment pallets.</td><td>Storage or Holding on pallets - the Permittees shall store or hold TRU mixed waste containers unloaded from the Contact-Handled Packages (TRUPACT-II or HalfPACT shipping containers) on ~~facility~~ pallets in the WHB Unit, as described in Permit Attachment M1, Section M1-1c(1).</td></tr>
<tr><td>Table III.A.1</td><td>III-2</td><td>1st entry</td><td>Removed TRUDOCK as a storage area.</td><td><table><tr><th>Description</th><th>Area</th><th>Maximum Capacity</th><th>Container Equivalent</th></tr><tr><td>~~TRUDOCK Storage Area~~</td><td>~~4,734 ft^2 (440 m^2)~~</td><td>~~530.4 ft^3 (15 m^3)~~</td><td>~~Contents of 4 Content Handled Packages~~</td></tr></table></td></tr>
<tr><td>Table III.A.1</td><td>III-2</td><td>2nd entry</td><td>Revised storage area capacity in the CH Bay Storage Area and moved 2 facility pallets to the TRUDOCK Holding Area.</td><td><table><tr><td>CH Bay Storage Area</td><td>20,574 ft^2 (1,911 m^2)</td><td>~~5,440~~ 4,800 ft^3 (~~154.0~~ 135 m^3)</td><td>~~17~~ 15 loaded facility pallets</td></tr></table></td></tr>
<tr><td>Table III.A.1</td><td>III-2</td><td>5th entry</td><td>Revised total storage area capacity for CH TRU mixed waste.</td><td><table><tr><td>Total for CH TRU Mixed Waste</td><td>20,915 ~~25,650~~ ft^2 (1,943m^2 ~~2,383 m^2~~)</td><td>5,186.3 ~~6,466.3~~ ft^3 147 ~~183.1~~ m^3</td><td></td></tr></table></td></tr>
<tr><td>Table III.A.1</td><td>III-2</td><td>6th entry</td><td>Revised storage area capacity in the RH Bay Storage Area to include the volume of 1 drum of derived waste.</td><td><table><tr><td>RH Bay</td><td>12,552 ft^2 (1166 m^2)</td><td>~~147~~ 155 ft^3 (~~4.2~~ 4.4 m^3)</td><td>2 loaded casks and 1 drum of derived waste</td></tr></table></td></tr>
</table>

<table>
<tr><th>Att/Module and Section</th><th>Page</th><th>Line</th><th>Comment</th><th>Proposed Change to Draft Permit</th></tr>
<tr><td>Table III.A.1</td><td>III-2</td><td>8th entry</td><td>Revised storage area capacity in the Hot Cell Storage Area to include the correct volume of facility canisters and include one drum of derived waste.</td><td>
<table>
<tr><td>Hot Cell</td><td>1,841 ft^2 (171 m^2)</td><td>~~262~~ 215 ft^3 (~~7.4~~ 6.1 m^3)</td><td>10 drums and 6 canisters and 1 drum of derived waste</td></tr>
</table>
</td></tr>
<tr><td>Table III.A.1</td><td>III-2</td><td>11h entry</td><td>Revised total storage area capacity for RH waste.</td><td>
<table>
<tr><td>Total for RH Waste</td><td>17,403 ft^2 (1,617 m^2)</td><td>~~545.8~~ 506.8 ft^3 (~~15.5~~ 14.4 m^3)</td></tr>
</table>
</td></tr>
<tr><td>Table III.A.1</td><td>III-2</td><td>Last entry</td><td>Revised total facility storage area capacity.</td><td>
<table>
<tr><td>Facility Total</td><td>38,317.5 ~~43,053~~ ft^2 (3,562.7 ~~4,000~~ m^2)</td><td>5,693 ~~7012~~ ft^3 (161) ~~199~~ m^3)</td><td></td></tr>
</table>
</td></tr>
<tr><td>Table III.A.2</td><td>III-4</td><td>1st entry</td><td>Revised storage area and corrected miscalculation for the storage area capacity for the PAU.</td><td>
<table>
<tr><th>Description</th><th>Area</th><th>Maximum Capacity</th><th>Container Equivalent</th></tr>
<tr><td>Parking Area Storage Unit</td><td>~~115,00 0~~ 24,985 ft^2 (~~10,700~~ 2,324 m^2)</td><td>~~7,160~~ 8,525 ft^3 (~~203~~ 241.4 m^3)[1]</td><td>50 confirmed Contact-Handled Packages containing waste and 14 Remote -Handled Packages containing waste[1]</td></tr>
</table>
</td></tr>
<tr><td>Table III.A.2</td><td>III-4</td><td>Foot-note</td><td>Clarified footnote to Table III.A.2.</td><td>[1] There may be no more than a combined total of 50 CH TRU Packages and 14 RH TRU Packages in the PAU storage or holding areas.</td></tr>
<tr><td>III.A.2.e.</td><td>III-5</td><td></td><td>Revised the aisle space definition to indicate that the minimum spacing for loaded Contact- or Remote-Handled Packages is four feet between trailers when the Packages are stored on trailers. This definition is consistent with that indicated in Section E-1b.</td><td>Minimum aisle space - when Contact- or Remote-Handled Packages contain waste, the Permittees shall maintain a minimum spacing of 4 ft (1.2 m) between trailers loaded with Contact- or Remote-Handled Packages or between Contact- or Remote-Handled Packages not on trailers.</td></tr>
<tr><td>III.C.1.g.</td><td>III-6</td><td></td><td>The Permittees believe that the description of the RH facility canister should be relocated to Permit Attachment M1, Section M1-1c (1) Waste Handling</td><td>~~RH TRU facility canister - with a gross internal volume of 31.4 ft^3 (0.89 m^3). RH TRU facility canisters contain up to three 55-gallon drums of RH TRU mixed waste from the payload of the CNS 10-~~</td></tr>
</table>

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			Building Container Storage Unit. The description of the RH facility canister in Module III.C.1, *Acceptable Storage Containers*, is inappropriate because the containers identified in that section must be DOT equivalent containers. The RH Facility Canister is not a DOT-7A container, but holds DOT-7A containers. As a handling device for RH TRU mixed waste containers, the description of the RH Facility Canister belongs in Permit Attachment M1, where the other RH TRU mixed waste container handling devices are described. This also ensures that the volume of RH TRU mixed waste is accounted for as the volume of the inner containers and not the facility canister.	~~160B.~~
Table IV.A.1	IV-2		The Permittees have proposed to change the table of authorized disposal volumes to reflect what was requested in the PMR. Specifically, the Permittees are authorized under an agreement with the State of New Mexico to dispose up to 7,080 m^3 of RH TRU mixed waste. This waste may be disposed in Panels 4 to 10 (with some amount being placed in Panel 3 depending on the approval date for RH TRU mixed waste). In order to accommodate the total allowed volume over the remaining disposal panels the Permittees have assigned 1,985 m^3 per panel, based on the repository design limit of 10 kilowatts per acre. This volume per panel is subject to two conditions. First, consistent with footnote 3, the total cannot exceed the repository limit of 7,080 m^3. Second, the current design geometry for emplacement includes only 730 boreholes per panel, each with one canister per borehole. Should the Permittees seek to emplace more waste per borehole, or construct more boreholes per panel, an additional permit modification will be needed to provide the technical basis (engineering analysis) for the new design. Any new design will be	See Attachment A at the end of these Comments.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			constrained by the total repository limit of 7,080 m^3 of RH TRU waste. The Permittees have deleted the "Area" column of Table IV.A.1 since the area of each panel is the same. This information is included in a footnote. In order to ensure that the authorized capacity for the repository is preserved, the Permittees believe their proposed approach provides a practical and safe limitation, which is to simply allow the total of mixed and non-mixed TRU waste in any Panel to exceed the table limits under two conditions: the repository limit is not exceeded and the mixed waste limit is not exceeded. The Permittees have proposed restoring their original table footnote.	
IV.C.1.f.	IV-4		Deleted RH TRU facility canister from this Permit condition. The RH TRU facility canister is neither a shipping container nor a payload container.	RH TRU canister ~~or RH TRU facility canister~~ - as an individual unit~~s~~.
A-4	A-2	14-26	Restored language to define holding areas at WIPP.	A-4 Facility Type There are three basic groups of structures associated with the WIPP facility: surface structures, shafts and underground structures. A-4a Surface Structures A-4a(1) Permitted Storage Areas The surface structures accommodate the personnel, equipment, and support services required for the receipt, preparation, confirmation and transfer of TRU mixed waste from the surface to the underground. There are two surface locations where TRU mixed waste will be ~~managed and~~ stored. The first area is the Waste Handling Building (**WHB**) Container Storage Unit (WHB Unit) for TRU mixed waste management and storage. The WHB Unit consists of the WHB contact-handled (**CH**) Bay and the remote-handled (**RH**) Complex. The second area designated for

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				~~managing and~~ storing TRU mixed waste is the Parking Area Container Storage Unit (Parking Area Unit), an outside container storage area which extends south from the WHB to the rail siding. The Parking Area Unit provides storage space for up to 50 loaded Contact-Handled Packages and 14 loaded Remote-Handled Packages on an asphalt and concrete surface. A-4a(2) Holding Areas Also included in the facility surface structures are holding areas in the Parking Area, within the WHB, and TRUPACT Maintenance Facility (**TMF**). The Parking Area Holding Area is shown in Figure M1-2. The WHB Holding Areas are shown in Figure M1-1. Use of holding areas is specified in Permit Attachment M1-1c(1). The indoor Container Holding Areas include the TRUDOCK Area, Room 108 and Airlock 107, and the WHB Holding Area in the WHB and the TMF Holding Area. These areas are used for the processing of incoming waste for no more than ten (10) days. If the containers are non-compliant, they may be held in the holding areas for an additional sixty (60) days. When confirmation of CH TRU mixed waste involves radiography, this will occur in the TMF if confirmation occurs at WIPP. There is sufficient floor space in the TMF to allow containment of liquids from containers which have been brought into the TMF for confirmation. The capacities of holding areas are listed in Tables A-1 and A-2. A-4b Shafts … A-4c Underground Structures

<table>
<tr><th>Att/Module and Section</th><th>Page</th><th>Line</th><th>Comment</th><th>Proposed Change to Draft Permit</th></tr>
<tr><td>Table A-1</td><td></td><td></td><td>Restored areas and capacities for the WHB/TMF Holding Areas. Added two facility pallets in the TRUDOCK Holding Area and corrected a miscalculation for capacity in Room 108 and Airlock 107 Holding Areas.</td><td>
Table A-1 - WHB/TMF Holding Areas
<table>
<tr><th>Description</th><th>Area</th><th>Maximum Capacity</th><th>Container Equivalent</th></tr>
<tr><td>TRUDOCK Holding Area</td><td>4,734 ft^2 (440 m^2)</td><td>1,280 ft^3 (36.2 m^3)</td><td>Contents of 4 Contact-Handled Packages and 2 loaded facility pallets</td></tr>
<tr><td>WHB Holding Area</td><td>6,026 ft^2 (560 m^2)</td><td>2,560 ft^3 (72.5 m^3)</td><td>8 loaded facility pallets</td></tr>
<tr><td>TRUPACT Maintenance Facility</td><td>9,081 ft^2 (844 m^2)</td><td>4,480 ft^3 (126.9 m^3)</td><td>14 loaded facility pallets</td></tr>
<tr><td>Room 108 and Airlock 107 Holding Areas</td><td>6,744 ft^2 (627 m^2)</td><td>2,240 ft^3 (63.4 m^3)</td><td>Contents of 2 Contact Handled Packages and 6 loaded facility pallets</td></tr>
<tr><td>Total</td><td>=</td><td>10,560 ft^3 (299 m^3)</td><td>=</td></tr>
</table>
</td></tr>
<tr><td>Table A-2</td><td></td><td></td><td>Restored areas and corrected miscalculation in the capacity for the Parking Area Holding Area.</td><td>
Table A-2 - Parking Area Holding Area[1]
<table>
<tr><th>Description</th><th>Area</th><th>Maximum Capacity</th><th>Container Equivalent</th></tr>
<tr><td>Parking Area Holding Area</td><td>156,656 ft^2 14,569 m^3</td><td>8,525 ft^3 241.4 m^3</td><td>50 Contact-Handled Packages and 14 Remote - Handled Packages Containing Waste</td></tr>
</table>
</td></tr>
<tr><td>Table A-2</td><td></td><td>Foot-note</td><td>Clarified footnote to Table A-2.</td><td>[1] There may be no more than a combined total of 50 CH Packages and 14 RH TRU Packages in the PAU storage or holding areas.</td></tr>
</table>

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
B-0	B-2	43	Changed “Report” to “Form”. The term “alone” is deleted here in order to avoid confusion regarding the role of radiography or VE as a post-packaging method to identify prohibited items. By deleting the term “alone,” the Permittees are not changing their position that all needed characterization information must be identified in the AK record in order to qualify a waste stream for an AK Sufficiency Determination. For example, if AK is sufficient to identify prohibited items in the waste stream, then an AK Sufficiency Determination should be granted for the chemical properties of the waste stream.	Waste characterization is defined in Module I as the activities performed by the waste generator to satisfy the general waste analysis requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.13(a)) before waste containers have been certified for disposal at WIPP. The characterization process for WIPP waste is presented in Figure B-2. Generator site waste characterization programs are first audited by the Permittees, with NMED approving the final audit report. After this, generator sites determine whether AK ~~alone~~ is sufficient for characterization, or whether a sampling and analysis program in conjunction with AK is necessary to adequately characterize wastes. If an AK Sufficiency Determination is sought, information is provided to the Permittees for their review and provisional approval; NMED determination of adequacy of the AK information is required before final approval by the Permittees. If the sampling and analysis route is chosen, sites proceed to sample and analyze waste in conjunction with AK and in accordance with this WAP. Once an AK Sufficiency Determination is obtained, or when required sampling and analysis data are obtained, sites would then prepare and submit the Waste Stream Profile ~~Report~~ Form for the Permittees’ approval.
B-0	B-3	1-2	Clarified statement to indicate what is to be determined through the waste confirmation process.	Once the WSPF is approved, a site may ship waste to WIPP. The Permittees will perform waste confirmation as specified in Permit Attachment B7, through ~~non-destructive examination (**NDE**)~~ confirmation of a representative subpopulation of certified waste containers, to ensure that there are no ignitable, corrosive, or reactive waste. ~~the wastes meet the TSDF-WAC.~~
B-0a	B-3	9	Clarified statement to indicate that Waste Matrix Code Groups are assigned on a waste stream and not container basis.	Characterization requirements for individual containers of TRU mixed waste are specified on a waste stream basis. A waste stream is defined as waste material generated from a single process or from an activity that is similar in material, physical form, and hazardous constituents. Waste streams are grouped by Waste Matrix Code Groups related to the physical and chemical properties of the waste. Generator/storage sites shall use the characterization techniques described in this WAP to assign appropriate Waste Matrix Code Groups to waste streams for WIPP disposal.
B-0a	B-5	1-7	Items II.C.3.i. through II.C.3.k. of the TSDF-WAC are not generator site actions and therefore should	The generator/storage sites shall analyze their waste in accordance with this WAP and associated Permit Attachments, and

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			not be part of their waste characterization activities under the WAP.	ensure that waste proposed for storage and disposal at WIPP meets the TSDF-WAC ~~in Module II~~ Permit Conditions II.C.3.a. through II.C.3.h. The generator/storage site shall assemble the Acceptable Knowledge (**AK**) information into an auditable record for the waste stream as described in Permit Attachment B4. For those waste streams with an approved AK Sufficiency Determination (see below), sampling and analysis per the methods described in Permit Attachments B1 and B2 are not required.
B-0b	B-5	26-28	The Permittees proposed an acceptable knowledge sufficiency determination process as part of the Permit modification. The intent of this process is that if a generator/storage site determined that additional chemical sampling and analysis are not required to resolve the assignment of hazardous waste numbers, an acceptable knowledge sufficiency determination request could be submitted to the Permittees. If the sufficiency determination is provisionally approved by the Permittees, and the NMED determines the provisional approval is adequate, then the generator/storage site would not be required to perform headspace gas or solid sampling and analysis for the affected waste stream(s). While NMED generally accepted the Permittees proposal, there are several areas in the draft Permit that imply an acceptable knowledge sufficiency determination is required if the generator/storage site is not going to perform 100 percent radiography or visual examination using the methods specified in the Permit. This was not the intent of the PMR and is inconsistent with other sections of the draft Permit issued by NMED (e.g., Figure B-2, which shows radiography occurring after waste stream profile form approval and separate from the acceptable knowledge sufficiency determination process). The term “alone” is deleted here in order to avoid	Generator/storage sites may identify waste streams that can be adequately characterized using AK ~~alone~~, without the need to perform post packaging sampling and chemical or physical ~~sampling and~~ analysis on any containers in the waste stream.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			confusion regarding the role of radiography or VE as a post-packaging method to identify prohibited items. By deleting the term "alone," the Permittees are not changing their position that all needed characterization information must be identified in the AK record in order to qualify a waste stream for an AK Sufficiency Determination. For example, if AK is sufficient to identify prohibited items in the waste stream, then an AK Sufficiency Determination should be granted for the chemical properties of the waste stream. Changes also occur at pages B4-1, B4-2b, B4-3d, and B4-3e.	
B-0b	B-6	30	Editorial change.	… The Permittees will not approve ~~an~~ a Determination Request …
B-0c	B-8	1	The WSPF will be submitted before confirmation activities (Items II.C.3.i through II.C.3.k. of the TSDF-WAC) are completed and therefore the word "applicable" has been inserted. The bold on TSDF-WAC has also been removed.	Only TRU mixed waste and TRU waste that has been characterized in accordance with this WAP and that meets the applicable TSDF-WAC specified in this Permit will be accepted at the WIPP facility for disposal in a permitted Underground Hazardous Waste Disposal Unit (**HWDU**).
B-0d	B-8	13-18	In the Permittees' PMR, radiography and visual examination methods applicable to the generator/storage sites were deleted. Instead, the Permittees would be required to perform radiography or visual examination of at least seven percent of each waste stream in each shipment to WIPP. The containers are proposed to be selected randomly in order to assure they are representative of the subpopulation of waste being confirmed. This Permittee confirmation would be sufficient to detect problems with the generator/storage site's characterization of the waste related to physical form or prohibited items and therefore compliant with the requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.13, General Waste Analysis Requirements (appropriate for TSDFs such	B-0d Waste Confirmation The Permittees will perform waste confirmation on a representative subpopulation of each waste stream shipment after certification and prior to ~~shipment~~ storage or disposal at the WIPP facility as described in Permit Attachment B7. The Permittees will use radiography, review of radiography scans, visual examination (**VE**), or review of VE records (e.g., VE data sheets or packaging logs) to examine 7 percent of each waste stream shipment to confirm that the waste does not contain ignitable, corrosive, or reactive waste. Waste confirmation will be performed by the Permittees at the WIPP site or at an off-site facility (e.g., generator/storage site).

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			as WIPP)). Any noncompliant waste discovered during the Permittees' confirmation activities would result in suspension of shipments of the affected waste stream to WIPP and trigger a corrective action process. For this reason, a specified method, with its attendant data validation regime, is no longer required to be imposed on the generator/storage sites. The Permittees still believe that it is unnecessary for NMED to impose radiography and visual examination method requirements on the generator/storage sites. Also in the PMR, the Permittees acknowledged that there may be times when a generator/storage site will be required to use radiography or visual examination as a waste characterization method. In particular, when the generator/storage site has insufficient AK information to segregate containers into waste streams or to assure that there are no prohibited items in the waste, examination of the waste will be necessary. The Permittees proposed that these methods would be examined by the Permittees for adequacy; however, the specifics of implementation would be left to the generator/storage site. If this condition remains in the Permit the Permittees should be allowed to use radiography scans recorded by the generator/storage sites to perform the confirmation of 7 percent of each waste stream in each shipment as described in Permit Attachment B7. If the scan was produced under a Permit specified protocol, there is no reason for the Permittees to actually re-radiograph the container. The Permittees would have a trained radiography operator review the video/audio recording to complete the radiography datasheet associated with the container being confirmed.	

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			The review by the Permittees of the radiographic scans of 7 percent of each waste stream in each shipment is sufficient to detect the types of radiography quality control issues that the independent replicate scans, independent observations, and periodic audio/video reviews were intended to prevent. Therefore, the requirements for independent replicate scans, independent observations, and periodic audio/video reviews should be deleted from Permit Attachment B1-3. Also, reinserted language to allow confirmation at WIPP.	
B-1c	B-10	9-32	Reinserted language to allow confirmation at WIPP and clarified sentence on waste streams containing less than fourteen containers in a shipment to WIPP.	Before accepting a container holding TRU mixed waste for storage or disposal at the WIPP facility, the Permittees will perform waste confirmation activities on each waste stream shipment to confirm that the waste does not contain ignitable, corrosive, or reactive waste and the assigned EPA hazardous waste numbers are allowed for storage and disposal by this Permit. Waste confirmation activities will be performed on 7 percent of each waste stream shipped, equating to examination of at least one of fourteen containers in each waste stream shipment. If a waste stream shipment contains fewer than fourteen containers ~~in a waste stream shipment are received~~, one container will be examined to satisfy waste confirmation requirements. Section B-4 and Permit Attachment B7 include descriptions of the waste confirmation processes that the Permittees will conduct ~~prior to receiving a shipment at the WIPP facility~~.
B-1c	B-10	37-40	Reinserted language to allow confirmation at WIPP.	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~~ stored or disposed of at the 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~~ stored or disposed of at WIPP.
B-2	B-11	37-39	Revised sentence to clarify what procedures are subject to audit.	The Permittees will evaluate the procedures during audits conducted under the Permittees' Audit and Surveillance Program

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				(Section B-5a (3)). Other procedures used by the generator/storage sites to characterize waste will be evaluated by the Permittees ~~and may also evaluate the procedures~~ as part of the review and approval of the WSPF.
B-2	B-12	33	Corrected table reference.	A listing of all approved hazardous waste numbers which are acceptable at WIPP are included in ~~the~~ Table B-~~8~~9.
B-3	B-13	28	Corrected double comma.	The characterization techniques used by generator/storage sites includes acceptable knowledge and may also include, as necessary, headspace-gas sampling and analysis, radiography, visual examination, and homogeneous waste sampling and analysis.
B-3a(2)	B-17	14-15	In several locations in the draft Permit the NMED has used the term "verify the assignment of hazardous waste numbers" to describe the purpose of headspace gas and solid sampling and analysis. In the PMR, the Permittees used the phrase "to resolve the assignment of hazardous waste numbers" when describing the purpose of headspace gas and solid sampling. This "resolution" is required when acceptable knowledge is insufficient to make the assignment of hazardous waste numbers. In the draft Permit the NMED retained the phrase, "to resolve the assignment of hazardous waste numbers" in most places where the purpose of headspace gas and solid sampling is described. The indicated change is needed to make the Permit consistent.	Sampling of homogeneous and soil/gravel wastes shall result in the collection of a sample that is used to ~~verify~~ resolve the assignment of hazardous waste numbers ~~assignment by acceptable knowledge~~.
B-3a(3)	B-18	23	Corrected reference and typographical error.	Acceptable knowledge is discussed in detail in Permit Attachment B4, which outlines the minimum set of requirements and DQOs which shall be met by the generator/storage sites in order to use acceptable knowledge. In addition, Section B-5a(3) of this permit attachment describes the assessment of acceptable knowledge

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				through the Permittees' Audit and Surveillance Program.
B-3d	B-19	36-41	See comment for Section B-3a(2).	B-3d…based upon acceptable knowledge, and the ~~Permittees will confirm~~ generator/storage sites may ~~verify these designations~~ resolve the assignment of hazardous waste numbers using headspace gas (~~all~~ Ssummary Ccategory Ggroup~~s~~ S5000 only) and solid sampling and analysis (Summary Category Groups S3000 and S4000 only).
B-3d	B-20	28-39	Deleted information on tentatively identified compounds (TICs) that is no longer pertinent to the WAP. Addition of compounds to the target analyte list is not necessary because the resolution of hazardous waste number assignment is based on the presence of analytes, not quantification.	In the process of performing organic headspace and solid sample analyses, non-target compounds may be identified. These compounds will be reported as TICs. TICs reported in 25% of the samples and listed in 20.4.1.200 NMAC (incorporating 40 CFR §261) Appendix VIII, will be compared with acceptable knowledge data to determine if the TIC is in a listed hazardous waste in the waste stream. ~~TICs identified through headspace gas analyses that meet the Appendix VIII list criteria and the 25 percent reporting criteria for a waste stream will be added to the headspace gas waste stream target list, regardless of the hazardous waste listing associated with the waste stream. TICs subject to inclusion on the target analyte list that are toxicity characteristic parameters shall be added to the target analyte list regardless of origin because the hazardous waste designation for these numbers is not based on source. However, for toxicity characteristic and non-toxic F003 constituents, the site may take concentration into account when assessing whether to add a hazardous waste number. TICs reported from the Totals VOC or SVOC analyses may be excluded from the target analyte list for a waste stream if the TIC is a constituent in an F-listed waste whose presence is attributable to waste packaging materials or radiolytic degradation from acceptable knowledge documentation.~~ If the TIC associated with a total VOC or SVOC analysis cannot be identified as a component of waste packaging materials or as a product of radiolysis, the generator/storage site will add these TICs to the list of hazardous constituents for the waste stream (and assign additional EPA listed hazardous waste numbers, if appropriate).
B-3d(1)	B-21	27-31	Deleted sentence that prescribes confirmation (verification) activity for the generator/storage site. Confirmation is defined as a Permittee	The Permittees will require that the generator/storage sites document the methods used to delineate waste streams in the acceptable knowledge record and Acceptable Knowledge

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			responsibility.	Summary Report. ~~Verification that the physical form of the waste (Summary Category Group) corresponds to the physical form of the assigned waste stream may be accomplished either during packaging or by performing radiography as specified in Attachment B1-3 for retrievably stored waste.~~
B-3d(1)	B-21	39-40	Clarified the requirements of the second VE operator.	Instead of using a video/audio tape as required with VE in lieu of radiography, the VE method for newly generated waste (or repackaged retrievably stored waste) uses a second operator, who is equally trained to the requirements stipulated in Permit Attachment B1, to provide ~~additional~~ verification of the first operator's results by reviewing the contents of the waste container to ensure correct reporting. If the second operator cannot provide concurrence, corrective actions[1] will be taken as specified in Permit Attachment B3. The subsequent waste characterization activities depend on the assigned Summary Category Group, since waste within the Homogeneous Solids and Soils/Gravel Summary Category Groups may be characterized using different techniques than the waste in the Debris Waste Summary Category Group.
B-3d(1)	B-22	9	Clarified that documenting packaging configuration in order to identify an appropriate DAC only applies to those containers undergoing headspace gas sampling and analysis.	The packaging configuration, type and number of filters, and rigid liner vent hole presence and diameter necessary to determine the appropriate drum age criteria (**DAC**) in accordance with Permit Attachment B1, Section B1-1, may be documented as part of the characterization information collected during the packaging of newly generated waste or repackaging of retrievably stored waste for those containers of debris waste that will undergo headspace gas sampling and analysis.
B-3d(2)	B-24	25-29	Deleted generator requirements for performing confirmation activities.	All retrievably stored waste containers will first be delineated into waste streams using acceptable knowledge. The Permittees will require that the generator/storage sites document the methods used to delineate waste streams in the acceptable knowledge record and Acceptable Knowledge Summary Report. ~~Retrievably stored waste containers may be examined using radiography or VE to verify the physical waste form (Summary Category Group), to verify the absence of prohibited items, and to determine additional waste characterization techniques that may be used based on the Summary Category Groups (i.e., S3000, S4000, S5000)~~.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
B-4	B-25 and 26	41-2	Corrected location of validation and verification processes and added a space between “are” and “described.”	The Permittees will ensure that applicable waste characterization processes performed by generator/storage sites sending TRU mixed waste to the WIPP for disposal meets WAP requirements through data validation, usability and reporting controls. Verification occurs at three levels: 1) the data generation level, 2) the project level, and 3) the Permittee level. The validation and verification process and requirements ~~for the data generation and project level~~ at each level are described in Section B3-10. ~~The validation and verification process at the Permittee Level is described in Attachment B7.~~
B-4a(1)	B-26	13	Items II.C.3.i. through II.C.3.k. of the TSDF-WAC are not generator site actions and therefore should not be part of their waste characterization activities under the WAP.	To assess whether TRU mixed wastes comply with the applicable TSDF-WAC.
B-4a(1)	B-27	4-12	When radiography and VE are used as waste characterization methods, their DQO requirements apply only to the determination of prohibited items.	Radiography – ~~To verify the TRU mixed waste streams by Waste Matrix Code for purposes of physical waste form identification and determination of sampling and analytical requirements, to identify prohibited items, and to confirm the waste stream delineation by acceptable knowledge.~~ To determine the absence of prohibited items when such absence is not substantiated by AK. Visual Examination – ~~To verify the TRU mixed waste streams by Waste Matrix Code for purposes of physical waste form identification, determination of sampling and analytical requirements, and to identify prohibited items.~~ To determine the absence of prohibited items when such absence is not substantiated by AK.
B-4a(2)	B-27	28	Clarified that the generator/storage site is only responsible for the DQOs that apply to waste characterization.	The Generator/Storage Site Project Manager or the Permittee approved laboratories, as applicable, shall conclude that all of the waste characterization DQOs have been met for the characterization of the waste stream prior to submitting a WSPF to

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				the Permittees for approval (Permit Attachment B3)
B-4a(6)	B-30	19	Clarified sentence since the original text implies that all radiography or VE must be completed when 100 percent radiography or VE is required as part of waste characterization to identify prohibited items in the waste stream.	Once a waste stream is ~~fully~~ characterized, the Site Project Manager will also submit to the Permittees a WSPF (Figure B-1) accompanied by the CIS for that waste stream which includes reconciliation with DQOs (Section B3-12b (1)).
B-5	B-31	27-30	Editorial change to clarify the meaning of the paragraph.	Permittee waste screening is a two-phased process. Phase I will occur prior to configuring shipments of TRU mixed waste. Phase II will occur after configuration of shipments of TRU mixed waste but before it is placed into storage or disposed at the WIPP facility. Figure B-3 presents Phase I of the TRU mixed waste screening process. Permit Attachment B7 presents the Permittees' TRU mixed waste confirmation portion of Phase II activities~~, which are the Permittees TRU mixed waste confirmation processes~~.
B-5a	B-32	12-18	Clarified that waste cannot be stored or disposed at WIPP prior to confirmation.	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 will verify that waste stream characterization meets the applicable WAP requirements as a part of the project level verification (Section B3-10b). 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.
B-5a(1)	B-33	31	Clarified that not all data will be accessed through the internet.	For example, totals analysis data will not be requested from sites that do not have homogeneous solids or soil/gravel waste. ~~The Permittees will access these data via the Internet to ensure an efficient transfer of this data.~~ Small quantity sites will be given a similar data structure by the Permittees that is tailored to their types of waste.
B-5a(2)	B-35	27-37	Clarified that waste cannot be stored or disposed at WIPP prior to confirmation, and an editorial comment to remove "assure."	The EPA hazardous waste numbers for the wastes that appear on the Waste Stream Profile Form will be compared to those in Table B-9 to ensure that only approved wastes are accepted for ~~management,~~ storage~~,~~ or disposal at WIPP. Some of the waste may also be identified by unique state hazardous waste codes or numbers. These wastes are acceptable for storage and disposal at WIPP as long as the TSDF-WAC are met. The CIS will be reviewed by the Permittees to verify that the waste has been classified

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				correctly with respect to the assigned EPA hazardous waste numbers. ~~Any~~ The analytical method used will be compared to those listed in Tables B-2, B-3, and B-4 to ~~assure~~ ensure 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.
B-5a(2)	B-36	18-25	Clarified that waste cannot be stored or disposed at WIPP prior to confirmation.	Any container with unresolved discrepancies associated with hazardous waste characterization will not be ~~managed,~~ stored~~,~~ or disposed at the WIPP facility until the discrepancies are resolved. All shipments of the subject waste stream will cease until the corrective action(s), as necessary, have been implemented and the discrepancy resolved. The Permittees will notify NMED when the certification status of a waste stream at a generator/storage site is revoked. Waste characterization and certification authority will not be reinstated until the generator/storage site demonstrates all corrective actions have been implemented and the program is reassessed by the Permittees.
B-5a(2)	B-35	36 and 42	Items II.C.3.i. through II.C.3.k. of the TSDF-WAC are not generator site actions and therefore should not be part of their waste characterization activities under the WAP.	The Permittees will verify that applicable TSDF-WAC compliance has been met by the generator/storage site. The EPA hazardous waste numbers for the wastes that appear on the Waste Stream Profile Form will be compared to those in the WIPP Hazardous Waste Permit Application Part A, Permit Attachment O, to ensure that only approved wastes are accepted for storage or disposal at WIPP. Some of the waste may also be identified by unique state hazardous waste numbers. These wastes are acceptable at WIPP as long as the applicable TSDF-WAC are met.
B-5a(2)	B-36	22-23	Clarified that NMED will be notified when the Permittees approval of a waste stream is revoked.	The Permittees will notify NMED when the ~~certification~~ approval status of a waste stream at a generator/storage site is revoked. Waste characterization and ~~certification~~ approval authority will not be reinstated until the generator/storage site demonstrates all corrective actions have been implemented and the program is reassessed by the Permittees.
B-5a(3)	B-37	3-7	Since radiography and VE are only required for some waste streams these data may not be available during audit. The appropriate sentences	The Permittees will also audit annually the Permittee approved laboratories performing waste sampling and/or analysis. ~~The accuracy of physical waste description and waste stream~~

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			have been deleted.	~~assignment provided by the generator/storage site will be verified by review of the radiography results, and visual examination of data records and radiography images (as necessary) during audits conducted by the Permittees. More detail on this audit process is provided in Permit Attachment B6.~~
B-5b	B-37	12	Changed "defects" to "integrity," and made editorial change.	Phase II of the waste shipment screening and verification process includes examination of a waste shipment after the waste shipment has arrived. ~~The~~ As part of Phase II, the Permittees will determine: 1) the completeness and accuracy of the EPA Hazardous Waste Manifest; 2) waste shipment completeness and container ~~defects~~ integrity; 3) land disposal restriction notice completeness; and 4) waste shipment irregularities.
B-5b	B-37	29	Deleted repeat of "Hazardous."	List of Hazardous ~~Hazardous~~ Waste Numbers per Container
B-5b(1)	B-38	18	Clarified bar-code information on RH-TRU 72B casks.	For shipments in the RH-TRU 72B cask, only one payload container is ~~bar-coded~~ included and the bar-code is checked during cask-to-cask transfer in the Transfer Cell.
B-5b(1)	B-38	34-40	Deleted paragraph that is redundant with previous paragraph.	~~The WWIS links the bar-coded identification numbers of all containers in a specific TRU mixed waste shipment to the waste assembly (for 7-packs, 4-packs, and 3-packs) and to the shipment identification number, which is also written on the EPA Hazardous Waste Manifest. Generators electronically transmit the waste shipment information to the WWIS before the TRU mixed waste shipment is transported. Once a TRU mixed waste shipment arrives, the Permittees verify the identity of each container (or one container in a bound 7-pack, 4-pack, or 3-pack) using the data already in the WWIS.~~
B-5b(1)	B-39	1-18	Changed to allow manifest discrepant shipment to be placed in holding areas until resolution.	Manifest discrepancies will be identified during manifest examination and container bar-code WWIS data comparison. A manifest discrepancy is a difference between the quantity or type of hazardous waste designated on the manifest and the quantity or type of hazardous waste the WIPP facility actually receives. The generator/storage site technical contact (as listed on the manifest) will be contacted to resolve the discrepancy. If the discrepancy is identified prior to the containers being removed from the package or shipping cask, the waste will be retained in the parking area. If the discrepancy is identified after the waste containers are

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				removed from the package or cask, the waste will be retained in ~~the Waste Handling Building (**WHB**)~~ a waste holding area until the discrepancy is resolved. Errors on the manifest can be corrected by the WIPP facility with a verbal (followed by a mandatory written) concurrence by the generator/storage site technical contact. All discrepancies that are unresolved within fifteen (15) days of receiving the waste will be immediately reported to NMED in writing. Notifications to NMED will consist of a letter describing the discrepancies, discrepancy resolution, and a copy of the manifest. If the manifest discrepancies have not been resolved within thirty (30) days of waste receipt, the shipment will be returned to the generator/storage facility.
B-5b(3)	B-40	17-33	Reinserted language that confirmation can be performed at WIPP.	The Permittees will verify that the containers (as identified by their container ID numbers) are the containers for which accepted data already exists in the WWIS. A check will be performed by the Permittees comparing the data on the WWIS Shipment Summary Report for the shipment to the actual shipping papers (including the EPA Hazardous Waste Manifest). This check also verifies that the containers included in the shipment are those for which approved shipping data already exist in the WWIS Transportation Data Module (Table B-~~8~~7). For standard waste boxes (**SWBs**) and ten drum overpacks (**TDOPs**), this check will include comparing the barcode on the container with the container number on the shipping papers and the data on the WWIS Shipment Summary Report. For 7-pack assemblies, one of the seven container barcodes will be read by the barcode reader and compared to the assembly information for this container on the WWIS Shipment Summary Report. This will automatically identify the remaining six containers in the assembly. This process enables the Permittees to identify all of the containers in the assembly with minimum radiological exposure. If all of the container IDs and the information on the shipping papers agree with the WWIS Shipment Summary Report, and the shipment was subject to waste confirmation by the Permittees at the WIPP facility or at an off-site facility as specified in Permit Attachment B7, the containers will be approved for storage and disposal at the WIPP facility.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
B-7	B-41 and 42	21-37	Moved the location of records text to the appropriate location within the section.	~~Waste characterization and waste confirmation data and documents related to waste characterization that are part of the WIPP facility operating record are managed in accordance with the following guidelines:~~ ~~B-7a~~ ~~General Requirements~~ • ~~Records shall be legible~~ • ~~Corrections shall be made with a single line through the incorrect information, and the date and initial of the person making the correction shall be added~~ • ~~Black ink is encouraged, unless a copy test has been conducted to ensure the other color ink will copy~~ • ~~Use of highlighters on records is discouraged~~ • ~~Records shall be reviewed for completeness~~ • ~~Records shall be validated by the cognizant manager or designee~~ ~~B-7b~~ ~~Records Storage~~ • ~~Active records shall be stored when not in use~~ • ~~Quality records shall be kept in a one-hour (certified) fire-rated container or a copy of a record shall be stored separately (sufficiently remote from the original) in order to prevent destruction of both copies as a result of a single event such as fire or natural disaster~~ • ~~Unauthorized access to the records is controlled by locking the storage container or controlling personnel access to the storage area~~ The following records will be maintained for waste characterization and waste confirmation purposes as part of the WIPP facility operating record: • Completed WIPP WSPFs and accompanying CIS, including individual container data as transferred on the WWIS (or received as hard-copy) and any discrepancy-

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				related documentation as specified in Section B-5a • Radiography and visual examination records (data sheets, packaging logs, and video and audio recordings) of waste confirmation activities • Completed Waste Receipt Checklists and discrepancy-related documentation as specified in Section B-5b • WIPP WWIS Waste Emplacement Report as specified in Section B-5a(1) • Audit reports and corrective action reports from the Permittees' Audit and Surveillance Program audits as specified in Section B-5a(3) and Permit Attachment B6 • CARs and closure information for corrective actions taken due to nonconforming waste being identified during waste confirmation by the Permittees These records will be maintained for all TRU mixed waste managed at the WIPP facility. Waste characterization and waste confirmation data and documents related to waste characterization that are part of the WIPP facility operating record are managed in accordance with the following guidelines: B-7a General Requirements • Records shall be legible • Corrections shall be made with a single line through the incorrect information, and the date and initial of the person making the correction shall be added • Black ink is encouraged, unless a copy test has been conducted to ensure the other color ink will copy • Use of highlighters on records is discouraged

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				• Records shall be reviewed for completeness • Records shall be validated by the cognizant manager or designee B-7b Records Storage • Active records shall be stored when not in use • Quality records shall be kept in a one-hour (certified) fire-rated container or a copy of a record shall be stored separately (sufficiently remote from the original) in order to prevent destruction of both copies as a result of a single event such as fire or natural disaster • Unauthorized access to the records is controlled by locking the storage container or controlling personnel access to the storage area
Table B-2	B-50	16-17	Deleted “Formaldehyde” and “Hydrazine” as they are only required for S3000 and S4000.	~~Formaldehyde~~[b] ~~Hydrazine~~[c]
Table B-5	B-55		Changed language in “Characterization Parameter” column to be consistent with other portions of this table.	~~Headspace gases~~ Hazardous constituents · ~~Gas VOCs~~ Listed
Table B-5	B-57		Changed “Characterization Parameter” to be consistent with other portions of this table.	~~Headspace gases~~ Hazardous constituents · ~~Gas VOCs~~ Listed
Figure B-2	B-67		Made various edits to figure.	Revised figure is attached.
Figure B-3	B-69		Revised figure to include confirmation.	Revised figure is attached.
B1-3	B1-26	26-39	See comment to Section B-0d, page B-8, line 15.	~~Independent replicate scans and replicate observations of the video output of the radiography process shall be performed under uniform conditions and procedures. Independent replicate scans shall be performed on one waste container per day or once per testing batch, whichever is less frequent. Independent observations of one scan (not the replicate scan) shall also be made once per day or once per testing batch, whichever is less frequent, by a qualified radiography operator other than the individual who performed the first examination. A testing batch is a suite of waste containers undergoing radiography using the same testing equipment. A testing batch can be up to 20 waste containers~~

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				~~without regard to waste matrix.~~ Oversight of radiography will be defined in the generator/storage site operating procedures and will be appropriate for the radiography method being used. ~~functions include periodic audio/video tape reviews of accepted waste containers and shall be performed by qualified radiography personnel other than the operator who dispositioned the waste container. The results of this independent verification shall be available to the radiography operator.~~ The Permittees shall require the site project manager to be responsible for monitoring the quality of the radiography data and calling for corrective action, when necessary.
Figure B1-1	B1-53		Revised several boxes to reflect correct Permit section numbers and tables.	Revised figure is attached.
B3-1	B3-1	12-19	Deleted paragraph that is no longer applicable.	~~The qualitative data or descriptive information generated by radiography and visual examination is not amenable to statistical data quality analysis. However, radiography and visual examination are complementary techniques yielding similar data for determining the waste matrix code and waste material parameter weights of waste present in a waste container. Therefore, visual examination results shall be used to verify the waste matrix code and waste material parameter weights determined by radiography. The waste matrix code is determined and waste material parameter weights are estimated to verify that the container is properly included in the appropriate waste stream.~~
B3-4a	B3-11	18-19	Clarified the requirements for confirmatory testing via radiography.	The objective of radiography for the program is to ~~verify the waste matrix code and~~ identify prohibited items ~~for each waste container~~.
B3-4a	B3-11 and 12	36	See comment to Section B-0d, page B-8, line 15.	~~Precision is maintained by reconciling any discrepancies between two radiography operators with regard to identification of the waste matrix code, liquids in excess of TSDF-WAC limits, and compressed gases through independent replicate scans and independent observations. Additionally, the~~ The precision of radiography is verified prior to use by tuning precisely enough to demonstrate compliance with QAOs through viewing an image test pattern.
B3-9	B3-21	11	Deleted “verification” to be consistent with the definitions of waste characterization and waste	The Permittees shall require each site to address quality control by tracking its performance with regard to the use of acceptable

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			confirmation as indicated in Module I.	knowledge by: 1) assessing the frequency of inconsistencies among information, and 2) documenting ~~the results of~~ acceptable knowledge ~~verification~~ inconsistencies identified through radiography, visual examination, headspace-gas analyses, and solidified waste analyses.
B3-10a(1)	B3-24	22-26	See comment for Section B-0d, page B-8, line 13-18.	~~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 (Attachment B1, Section B1-3). The radiography tape will be reviewed against the data reported on the radiography form to ensure that the data are correct and complete.~~
B3-10b(1)	B3-27	28	See comment for Section B-0d, page B-8, line 13-18.	Testing batch QC checks (e.g., ~~replicate scans,~~ measurement system checks) 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 B1-3.~~
B4-1	B4-1	12-26	See comment for Section B-0b, page B-5, lines 26-28.	EPA's 1994 Waste Analysis Guidance Manual broadly defines the term "acceptable knowledge" to include~~s~~ process knowledge, whereby detailed information on the wastes is obtained from existing published or documented waste analysis data or studies conducted on hazardous waste generated by processes similar to that which generated the waste; facility records of analysis performed before the effective date of RCRA; and waste analysis data obtained from generators of similar wastes that send their wastes off-site for treatment, storage, or disposal (EPA, 1994). If a generator/storage site determines that AK ~~alone~~ is insufficient to accurately characterize a waste, the site may use radiography and/or visual examination, headspace gas sampling and analysis, and homogeneous waste sampling and analysis (specified in Permit Attachment B1) to complete the waste characterization process and satisfy the requirements of the Waste Analysis Plan (WAP) specified in Permit Attachment B. Acceptable knowledge is used in TRU mixed waste characterization activities in five ways:
B4-1	B4-1	28	Items II.C.3.i. through II.C.3.k. of the TSDF-WAC are not generator site actions and therefore should not be part of their waste characterization activities.	To assess whether TRU mixed wastes comply with the applicable portions of the Treatment, Storage, and Disposal Facility Waste Acceptance Criteria (**TSDF-WAC**).

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
B4-1	B4-2	1-5	See comment for Section B-0b, page B-5, lines 26-28.	Sampling and analysis may be performed after waste packaging to augment the characterization of wastes based on acceptable knowledge when an AK Sufficiency Determination has not been requested by the generator/storage site or, if requested, has not been granted by the Permittees (see Section B4-3d). Sampling and analysis consists of ~~radiography, visual examination,~~ headspace gas and homogeneous waste sampling and analysis. TRU mixed waste streams shall undergo applicable provisions of the acceptable knowledge process prior to management, storage, or disposal by the Permittees at WIPP.
B4-2b	B4-4	30-33 and 37-38	See comment for Section B-0b, page B-5, lines 26-28.	• ~~If an AK Sufficiency Determination is not being sought, procedures~~ Procedures for ~~augmenting acceptable knowledge information through~~ headspace gas sampling and analysis, visual examination and/or radiography, and homogeneous waste sampling and analysis if used for waste characterization • For newly generated waste, procedures describing process controls used to ensure prohibited items (specified in the WAP, Permit Attachment B) are documented and managed • ~~If an AK Sufficiency Determination is not being sought, procedures~~ Procedures to ensure radiography and visual examination, if used for waste characterization, include a list of prohibited items that the operator shall verify are not present in each container of waste (e.g., liquids exceeding TSDF-WAC limits, corrosives, ignitables, reactives, and incompatible wastes)
B4-3d	B4-11	7-8	See comment for Section B-0b, page B-5, lines 26-29	Generator/storage sites may elect to submit an AK Sufficiency Determination Request (**Determination Request**) for those waste streams that can be adequately characterized through acceptable knowledge ~~alone~~, without the need to perform post packaging sampling and chemical or physical ~~sampling and~~ analysis on any containers in the waste stream. The Determination Request shall include, at a minimum:
B4-3e	B4-12	15-16	See comment for Section B-0b, page B-5, lines 26-	Acceptable knowledge includes information regarding the physical

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			28.	form of the waste, the base materials composing the waste, and the process that generates the waste. Waste characterization methods ~~sampling and analysis~~ (i.e., radiography or visual examination, headspace-gas sampling and analysis, and homogeneous waste sampling and analysis) may be used to augment acceptable knowledge information.
B4-3e	B4-13	11-21	Clarified that waste can be shipped from generator/storage sites prior to confirmation.	The Permittees shall require sites to establish procedures for reevaluating acceptable knowledge if the results of waste confirmation in accordance with Permit Attachment B7 indicate that the waste ~~to be shipped~~ does not match the approved waste stream~~, or if data obtained from radiography or visual examination for waste streams without an AK Sufficiency Determination exhibit this discrepancy~~. Site procedures shall describe how the waste is reassigned, acceptable knowledge reevaluated, and appropriate hazardous waste numbers assigned. If the reevaluation requires that the Waste Matrix Code be changed for the waste stream or the waste does not match the approved waste stream the following minimum steps shall be taken to reevaluate acceptable knowledge:
B4-3f	B4-17	1-10	Clarified that waste confirmation is performed by the Permittees and that radiography scans may be used for confirmation purposes.	Each site shall address quality control by tracking its performance with regard to the use of acceptable knowledge by: 1) assessing the frequency of inconsistencies among information, and 2) documenting the results of waste discrepancies identified by the generator/storage site during waste characterization or the Permittees during waste ~~examination~~ confirmation using radiography, visual examination, review of radiography scans, or review of visual examination records. In addition, the acceptable knowledge process and waste stream documentation shall be evaluated through internal assessments by generator/storage site quality assurance organizations.
Figure B4-1	B4-23		Revised reference from “B4-2” to “B4-2c” and revise “Confirm acceptable knowledge during characterization activities” to “Evaluate acceptable knowledge…”	Revised figure is attached.
Figure B4-2	B4-25		Deleted 8th item.	Revised figure is attached.
INTRO.	B7-1	6-15	Reinserted the ability to perform confirmation at WIPP.	The Permittees demonstrate compliance with the Permit by ensuring that the waste characterization processes performed by generator/storage sites (**sites**) produce data compliant with the

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				WAP and through the waste screening and verification processes. Verification occurs at three levels: 1) the data generation level, 2) the project level, and 3) the Permittee level. The Permittees also examine a representative subpopulation of waste prior to disposal to confirm that the waste contains no ignitable, corrosive or reactive waste; and that assigned Environmental Protection Agency (**EPA**) hazardous waste numbers are allowed by the Permit. The waste confirmation activities described herein occur at the WIPP facility or at an off-site facility (e.g., generator/storage site).
B7-1a	B7-11	9-19	Reinserted the ability to perform confirmation at WIPP.	The Permittees shall confirm that the waste contains no ignitable, corrosive, or reactive waste through radiography (Section B7-1b) or the use of visual examination (Section B7-1c) of a statistically representative subpopulation of the waste. Waste confirmation will be performed on randomly selected containers from each waste stream shipment of TRU mixed waste prior to storage or disposal at WIPP. ~~Both CH and~~ RH TRU mixed waste will be verified and confirmed at a generator/storage site before shipment to WIPP. The CH TRU mixed waste confirmation will be performed either on-site after the shipment is received or at an off-site facility (e.g., generator/storage site) prior to receipt. Figure B7-1 presents the overall waste verification and confirmation process. Figure B7-2 presents the waste examination process at the generator /storage sites (or off-site facilities). Figure B7-3 presents the waste confirmation process at WIPP.
B7-1b	B7-12	4-10	Reinserted the ability to perform confirmation at WIPP.	Radiography has been developed by the Permittees specifically to aid in the examination and identification of containerized waste. The Permittees shall describe all activities required to achieve the radiography objectives in standard operating procedures (**SOPs**). These SOPs shall include instructions specific to the radiography system(s) used by the Permittees either at the WIPP site or at an off-site facility (e.g., the generator/storage site). For example, to detect liquids, some systems require the container to be rotated back and forth while other systems require the container to be tilted.
B7-1b	B7-12	34	See comment for Section B-0d, page B-8, line 13-18.	Containers whose contents prevent full examination of the remaining contents shall be subject to visual examination unless the Permittees certify that visual examination would provide no

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				additional relevant information for that container based on the acceptable knowledge information for the waste stream. Such certification shall be documented in the WIPP facility operating record. For containers that have been characterized using radiography by the generator/storage sites in accordance with the method in Attachment B1-3, the Permittees may perform confirmation by review of the radiography scan recorded by the generator/storage site.
B7-1b(2)	B7-13	10	Revised to reflect that not all reviews may be performed by a "supervisor" – some may be performed by training personnel.	A training drum with internal containers of various sizes shall be scanned biannually by each operator. The video and audio media shall then be reviewed by a ~~supervisor~~ qualified training individual to ensure that operators' interpretations remain consistent and accurate. Imaging system characteristics shall be verified on a routine basis.
B7-1b(2)	B7-13	18	See comment for Section B-0d, page B-8, line 13-18.	Independent replicate scans and replicate observations of the video output of the radiography process shall be performed under uniform conditions and procedures. Independent replicate scans shall be performed on one waste container per day or once per shipment, whichever is less frequent. Independent observations of one scan (not the replicate scan) shall also be made once per day or once per shipment, whichever is less frequent, by a qualified radiography operator other than the individual who performed the first examination. When confirmation is performed by review of audio/video recorded scans produced by the generator/storage site in accordance with the method described in Section B1-3, independent observations shall be performed on two waste containers per shipment or two containers per day, whichever is less frequent.
B7-1c	B7-13	22-36	Clarified what is required to be identified during visual examination and reinserts the ability to perform confirmation at WIPP.	Visual examination (**VE**) may also be used as a waste confirmation method by the Permittees. VE shall be conducted by the Permittees in accordance with written SOPs to describe the contents of a waste container. ~~The description shall clearly identify all discernible waste items, residual materials, packaging materials, or waste material parameters.~~ VE may be used by the Permittees to examine a statistically representative subpopulation of the waste received at the WIPP to confirm that the waste contains no

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				ignitable, corrosive, or reactive waste. This is achieved by confirming that the waste contains no residual liquids in excess of TSDF-WAC limits or compressed gases, and that the physical form of the waste matches the waste stream description documented on the WSPF. A VE data form is used to document this information. During packaging, the waste container contents are directly examined by trained personnel. This form of waste confirmation may be performed by the Permittees at the WIPP site or at an off-site facility, e.g., a generator/storage site. The VE may be recorded on video and audio media, or alternatively, by using a second operator to provide additional verification by reviewing the contents of the waste container to ensure correct reporting.
B7-1c(2)	B7-15	5-11	The statement is too restrictive in that it requires each VE expert to have knowledge of all waste generated at all sites. Revise the language to be more appropriate.	The Permittees shall designate a VE expert. The VE expert shall be familiar with the waste generating processes that have taken place at each site and with all of the types of waste being characterized at each site where were used to generate the waste streams will being confirmed using VE. The VE expert shall be responsible for the overall direction and implementation of the Permittee's' VE program. The Permittees shall specify the selection, qualification, and training requirements of the visual examination expert in an SOP.
B7-1e(1)	B7-17	6-12	Allows shipment of waste to WIPP prior to confirmation.	The radiography and/or VE confirmation data for each shipment shall receive an independent technical review. This review will be performed before the affected waste shipment is stored or disposed of at shipped to the WIPP facility. The review shall be performed by an individual other than the data generator who is qualified to have performed the work. The review will be performed in accordance with approved Permittee SOPs and will be documented on a review checklist. The reviewer(s) must approve the data as evidenced by signature, and as a consequence, ensure the following:
B7-1e(1)	B7-17	19-21	See comment for Section B-0d, page B-8, line 13-18.	Radiography video and audio media recordings have been reviewed (independent observation) on a waste container basis at a minimum of once per shipment or once per day of operation, whichever is less frequent. If review of radiography scans recorded by the generator/storage site was used to perform confirmation, two observations must be performed for each shipment or two observations per day, whichever is less frequent. The radiography

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				video/audio recording will be reviewed against the data reported on the radiography form to ensure that the data are correct and complete.
B7-2	B7-18	7-36	Reinserted the procedures that are required if a noncompliant waste is discovered during confirmatory activities. There is no regulatory requirement to suspend all shipments if a noncompliant container is discovered and notification requirements for NMED are already included in Attachment B7.	If ~~the Permittees identify noncompliant waste~~ during waste 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 confirmation 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 Permit Attachment B. 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. NMED will be notified within 24 hours of any suspension of waste stream shipments ~~due to the identification of nonconforming waste during waste confirmation~~. The Permittees may, at their discretion, continue to confirm 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 characterization information documented in the Characterization Information Summary and/or WSPF for the waste stream must be updated because the results of waste confirmation for the waste stream indicated that the TRU mixed waste being examined did not match the waste stream description. If the Characterization Information Summary and/or WSPF requires revision, shipments of the affected waste stream shall not resume until the revised waste

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				stream waste 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 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.
B7-3	B7-18	37	New requirement to allow confirmation at WIPP based upon NRC approved method for transporting liquids or aerosol containers from the WIPP facility.	Confirmation Activities at WIPP If Confirmation activities performed at the WIPP facility by the Permittees in accordance with Attachment B7 identify ignitable, corrosive or reactive waste, the non-compliant container will be returned to the generator, to another DOE facility or to an appropriate third-party facility for remediation within sixty (60) calendar days. The Permittees shall: • Segregate the non-compliant payload container • Tag the non-compliant container, overpack the container if appropriate and label the payload container as required • Notify the NMED within 24 hours of identifying a non-compliant container • Make a determination as to whether the non-compliant container can be shipped off-site under the current NRC Certificates of Compliance • If necessary, either seek a limited amendment of the Certificate of Compliance or make application to the NRC for an exemption to allow transport of the non-compliant container off-site • Remove the non-compliant container from WIPP within sixty (60) calendar days
Figure B7-1	B7-29		Reinserted Permittees' Figure B7-1 in lieu of NMED version of Figure B7-1 with changes.	Figure B7-1 is attached.
Figure B7-2	B7-30		Revised 3rd and 4th blocks, top row of figure B7-2 to read "Perform Radiography, Review of Radiography	Revised figure is attached.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			Scans, VE, or Review of VE Records for Selected Containers."	
Figure B7-3	B7-31		Reinserted Figure B7-3 with changes.	Figure B7-3 is attached.
Figure B7-5			Reinserted Figure B7-5 and identify as Figure B7-4 with changes.	Figure B7-4 is attached.
C-1a(2)	C-2 – C-3	31-41, 1-9	Revised entry control to include holding areas.	For the purposes of entry control to areas where wastes are being handled, the Waste Handling Building Container Storage Unit (**WHB Unit**), the boundaries of the Parking Area Unit south of the WHB, the holding areas and those portions of the underground where wastes are disposed are posted as Controlled Areas (**CAs**). The WIPP allows access to a CA by anyone who has successfully completed General Employee Radiological Training, which is included in the General Employee Training Course. Access for visitors can also be arranged with proper training. Areas within the CA, however, may have further access restricted. Smaller areas may be designated as Radiological Buffer Areas, Radiation Areas, and Radioactive Materials Area. These smaller areas are generally within the direct vicinity of waste handling activities, waste confirmation activities, or waste storage or disposal areas. They are sized and posted in accordance with strict guidelines. Activities in these areas are performed under a Radiological Work Permit (**RWP**), and personnel must be listed on the RWP before they are allowed to enter. To be listed on the RWP, personnel must have the appropriate radiological and hazardous waste worker training and must have available radiation dose for the task. In addition, the individuals must sign the RWP acknowledging that they intend to comply with the radiological controls that are in place. Personnel may be escorted into the smaller areas if they are escorted by a person who meets all of the above requirements and is not performing any work in the area. The WHB Unit, the Parking Area Unit, the holding areas, and the underground Hazardous Waste Disposal Units (HWDUs) will be posted with a sign that states: "Danger: Authorized Personnel Only" in both English and Spanish.
D-1a	D-3	25-35	Revised inspection procedures to include holding	Tables D-1, D-1a, and D-2 of this Permit Attachment list the major

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			areas.	categories of monitoring equipment, safety and emergency systems, security devices, and operating and structural equipment that are important to the prevention or detection of, or the response to, environmental or human health hazards caused by hazardous waste. These systems may include numerous subsystems. These systems are inspected according to the frequency listed in Tables D-1 and D-1a, a copy of which is maintained at the WIPP facility. The frequency of inspections is based on the nature of the equipment or the hazard and regulatory requirements. When in use, daily inspections are made of areas subject to spills, such as TRU mixed waste loading and unloading areas in the WHB Unit and holding areas in the WHB and TMF, looking for deterioration in structures, mechanical items, floor coatings, equipment, malfunctions, etc., in accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.15(b)(4)).
D-1b(1)	D-4 and D-5	31-39, 1-24	Revised inspection procedures to include holding areas.	Containers are used to manage TRU mixed waste at the WIPP facility. These containers are described in Permit Module III. Off-site CH TRU mixed waste will arrive in 55-gallon drums arranged as seven (7)-packs, in Ten Drum Overpacks (**TDOP**), in 85-gallon drums arranged as four (4) packs, in 100-gallon drums arranged as three (3) packs, or in standard waste boxes (**SWB**). The waste containers will be visually inspected to ensure that the waste containers are in good condition and that there are no signs that a release has occurred. This visual inspection shall not include the center drums of 7-packs and waste containers positioned such that visual observation is precluded due to the arrangement of waste assemblies on the facility pallets. If CH TRU mixed waste handling operations should stop for any reason with containers located on the ~~TRUPACT-II Unloading Dock~~ ~~(~~TRUDOCK Holding Area ~~storage area of the WHB Unit)~~ in the Contact-Handled Packages, primary waste container inspections could not be accomplished until the containers of waste are removed from the shipping containers. RH TRU mixed waste will arrive in containers inside Nuclear Regulatory Commission (**NRC**)-certified casks designed to provide shielding and facilitate safe handling. Canisters will be loaded singly into an RH-TRU 72-B cask. Drums will be loaded into a CNS 10-160B cask. The cask will be visually inspected upon arrival.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				Because RH TRU mixed waste is held in the Parking Area Holding Area or stored in the Parking Area Unit in sealed casks, there are no additional requirements for engineered secondary containment systems. Following removal of the canisters and drums, the interior of the cask will be inspected and surveyed for evidence of contamination that may have occurred during transport. RH TRU mixed waste is handled and stored in the RH Complex of the WHB. The RH Complex includes the following: RH Bay, the Cask Unloading Room, the Hot Cell, the Transfer Cell, and the Facility Cask Loading Room. As RH TRU mixed waste is held in canisters within a canister rack the physical inspection of the drum or canister is not possible. Inspections of RH TRU mixed waste in these areas occurs remotely via closed-circuit camera a minimum of once weekly when stored waste is present. Because RH TRU mixed waste is held in the Parking Area Holding Area or stored in the Parking Area Unit in sealed casks, there are no additional requirements for engineered secondary containment systems. However, the floors in the RH Complex (including the RH Bay, Facility Cask Loading Room and Cask Unloading Room) are coated concrete and during normal operations (i.e., when waste is present), the floor of the RH Complex is inspected visually or by using close-circuit cameras on a weekly basis to verify that it is in good condition and free of obvious cracks and gaps.
D-1b(1)	D-6	4	Editorial.	Changed “Contact-Handles” to Contact-Handled”.
Table D-1	D-16	11-14	Removed equipment from the CH inspection procedures that is now located in the RH inspection procedures.	Deleted references to the following: ~~Facility Grapple~~ ~~15-Ton Bridge Crane~~ ~~Hook and Rope on 50/25 Ton Bridge Crane~~
Table D-1a	D-19	6, 12, 15, 17, 20, 22, 24	Changed terminology for required inspections.	Changed “Preoperational” to “Pre-evolution”.
Table D-1a	D-19	9,13,26,29	Added new footnote.	For all locations where the term “Preoperational” remains add footnote “i”.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
Table D-1a	D-19	26,29	Changed to indicate that the integrity of the floor is inspected.	Changed “Floor coating integrity” to “Floor integrity”.
Table D-1a	D-20	1,5, 7, 8, 11, 14, 17	Added new footnote.	For all locations where the term “Preoperational” remains add footnote “i”.
Table D-1a	D-20	14-16	Changed to the responsible organization and the procedure numbers.	In column titled “Responsible Organization” change “Radiation Safety” to “Radiation Control”. In the column entitled “Procedure Number” delete all procedure numbers and insert the following” WP12-HP124, IC240010, WP12-HP130, IC240007, WP12-HP131.
Table D-1a	D-20	20	Changed terminology for required inspections.	Changed “Preoperational” to “Pre-evolution”.
Table D-1a	D-20	7,8	Changed to indicate that the integrity of the floor is inspected.	Changed “Floor coating integrity” to “Floor integrity”.
Table D-1a	D-21	1,3,4	Added new footnote.	For all locations where the term “Preoperational” remains add footnote “i”.
Table D-1a	D-21	3	Changed to indicate that the integrity of the floor is inspected.	Changed “Floor coating integrity” to “Floor integrity”.
Table D-1a	D-22	1	Changed position title.	Changed “Manager, RH Waste Handling” to “RH Waste Handling Engineer”.
Table D-1a	D-22	6	Changed organization title.	Changed “Radiation Safety” to “Radiological Control”.
Table D-1a	D-23	9	Revised footnote “c.”	"~~Preoperational" signifies that inspections are required prior to the waste handling evolution. (The~~ “Pre-evolution” signifies that inspections are required prior to equipment use in the waste handling process. (An evolution is considered to be from the receipt of a cask into the RH Bay through canister emplacement in the underground.)
Table D-1a	D-23	26	Added new footnote “i.”	“Preoperational” signifies that inspections are required prior to the first use in a calendar day.
E-2f	E-16	1	Removed “confirmatory” to be consistent with Attachment N.	…release to the air, the ~~confirmatory~~ volatile organic compound monitoring plan described in Permit Attachment N…
F-1e	F-6	After 22	Revised draft Permit to describe secondary containment in the holding areas at WIPP.	There are four indoor holding areas where waste will be held until the waste confirmation requirements of Attachment B7 have been met. These areas are the WHB Holding Area, the TRUDOCK Holding Area, Room 108 and Airlock 107 Holding Areas and the TMF Holding Area. The floor of the WHB and the TMF provide

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				secondary containment for these areas. There is one outdoor holding area within the Parking Area. This area is shown in Figure M1-2. This area is used to hold CH TRU or RH TRU Packages until the waste confirmation requirements of Attachment B7 have been met. Secondary containment in these areas is provided by the packages.
F-1e(1)	F-6 and F-7	28-39, 1-5	Revised draft Permit to indicate how waste containers will be stacked on containment pallets, that waste will be placed in holding areas until after confirmation and how the confirmation process will occur at WIPP.	Once unloaded from the Contact-Handled Package, CH TRU mixed waste containers (7-packs of 55-gal drums, 3-packs of 100-gal drums, 4-packs of 85-gal drums, SWBs, or TDOPs) are placed in one of two positions on the facility pallet. Waste containers destined for confirmation may be placed one-high on containment pallets. The waste containers are stacked on the facility pallets (one- or two-high, depending on weight considerations). The use of facility pallets will elevate the waste at least 6 inches (in.) (15 centimeters [cm]) from the floor surface. Pallets of waste will then be relocated to ~~the northeast area of the CH bay for normal storage. This storage area will be clearly marked to indicate the lateral limits of the storage area. This storage area will have a maximum capacity of seven facility pallets of waste during normal operations. These pallets will typically be staged in this area for a period of up to five days.~~ the WHB Holding Area, Room 108 and Airlock 107 Holding Areas or the TMF Holding Area until the confirmation requirements of Attachment B7 have been completed but for no longer than ten (10) days. These areas are shown in Figure M1-1. During this time period seven percent of the containers in each waste stream in each shipment will undergo confirmation to show that there are no ignitable, corrosive or reactive wastes. Confirmation of CH-TRU mixed waste will occur either via radiography, review of radiography scans, VE or through a review of the VE records. Each unconfirmed container assembly will be tagged to indicate that confirmation has not occurred. No containers from an unconfirmed waste stream in an unconfirmed shipment can be placed in the repository.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				Containers will be randomly selected from each waste stream in each shipment to undergo confirmation. The selected containers will be located and, if confirmation is to be performed via radiography, the selected container will be placed on a facility or containment pallet for transport to the radiography equipment. Waste stream shipments may not be disposed until the confirmation data are approved in accordance with Attachment B7 of this HWFP. ~~In addition, four Contact-Handled Packages, containing up to 640 ft^3 of CH TRU waste in containers, may occupy the staging positions at the TRUPACT-II Unloading Docks (**TRUDOCK**).~~ Aisle space shall be maintained in all CH Bay waste storage and holding areas. The aisle space shall be adequate to allow unobstructed movement of fire response personnel, spill-control equipment, and decontamination equipment that would be used in the event of an off-normal event. An aisle space between facility and containment pallets will be maintained in all CH TRU mixed waste storage and holding areas.
F-1e(2)	F-7	18	Revised incorrect Hot Cell storage capacity.	Storage in the Hot Cell occurs in either drums or canisters. A maximum of 10 drums and 6 loaded facility canisters and one drum of derived waste (~~262~~ 215 ft^3 (~~7.4~~ 6.1 m^3)) may be stored in the Hot Cell.
F- 1e(3)	F-7	31-39	Revised to describe the holding areas associated with the Parking Area and corrected the capacity of the PAU and Parking Area Holding Area.	F-1e(3) Parking Area Container Storage Unit and Holding Area ~~(Parking Area Unit)~~ The area extending south from the WHB within the fenced enclosure identified as the Controlled Area on Figure M1-2 is defined as the Parking Area ~~Container~~ Storage Unit. This area provides storage for up to ~~7,160~~ 8,525 ft^3 (~~203~~ 241.4 m^3) of CH and/or RH TRU mixed waste contained in up to 50 loaded Contact-Handled Packages and 14 Remote-Handled Packages. Secondary containment and protection of the waste containers from standing rainwater are provided by the transportation containers.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				The holding area is shown in Figure M1-2. This area may be used to hold confirmed and unconfirmed CH TRU and RH TRU Packages for up to ten (10) days while the waste confirmation requirements of Attachment B7 are being met. Once these requirements have been met the packages may be moved to permitted storage areas.
F-1g	F-8 and F-9	16-41, 1-4	Revised draft Permit to describe the movement of waste to the TMF for confirmation, the inspection of holding areas and secondary containment for the holding areas.	The WHB Unit has concrete floors, which are sealed with a coating designed to resist all but the strongest oxidizing agents. Such oxidizing agents do not meet the TSDF-WAC and will not be accepted in TRU mixed waste at the WIPP facility. Therefore, TRU mixed wastes pose no compatibility problems with respect to the WHB Unit floor. When confirmation of TRU mixed waste involves radiography this function may occur in the TMF which encompasses an area of 9,081 square feet, There is sufficient floor space in the TMF to allow containment of liquids from waste containers which have been brought into the TMF. During normal operations, the floor of the ~~normal~~ storage and holding areas within the TMF, CH Bay and RH Complex shall be visually inspected on a weekly basis to verify that it is in good condition and free of obvious cracks and gaps. When an RH TRU mixed waste container is present in the RH Complex, inspections will be conducted visually and/or using a closed-circuit television camera in order to manage worker dose and minimize radiation exposures. Manual inspections of the areas are performed at least annually during routine maintenance periods when waste is not present. Floor areas of the WHB used during off-normal events will be inspected prior to use and weekly while in use. Containers located in the holding or permitted storage areas shall be elevated from the surface of the floor. Facility pallets provide at least 6 inches (15 centimeters [cm]) of elevation from the surface of the floor. TRU mixed waste containers that have been removed from Contact-Handled or Remote-Handled Packages shall be ~~stored~~ placed in ~~at~~ a designated holding or storage area inside the WHB so as to

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				preclude exposure to the elements. Secondary containment at holding areas or permitted storage areas inside the WHB Unit shall be provided by the floor. The Parking Area Unit, Parking Area Holding Area and TRUDOCK ~~storage~~ Holding A~~a~~rea of the WHB ~~Unit~~ do not require engineered secondary containment., ~~since waste~~ TRU mixed waste is not held or stored there unless it is protected by the Contact-Handled or Remote-Handled Packaging. Floor drains, the fire suppression water collection sump, and portable dikes, if needed, will provide containment for liquids that may be generated by fire fighting. Sump capacities and locations are shown in Drawing 41-F-087-014. Residual fire fighting liquids will be placed in containers and managed as described above. Secondary containment at storage locations inside the RH Bay, Cask Unloading Room, Transfer Cell, and Facility Cask Loading Room is provided by the cask or canisters that contain drums of RH TRU mixed waste. In the Hot Cell, secondary containment is provided by the Hot Cell subfloor. In addition, the RH Complex contains a 220-gallon (833-L) sump in the Hot Cell, a 11,400-gallon (43,152-L) sump in the RH Bay, and a 220-gallon (833-L) sump in the Transfer Cell to collect any liquids.
F-4d	F-20	16-25	Revised to require waste undergoing confirmation to be on either a facility or containment pallet.	The WIPP facility is required to control an emergency and to minimize the potential for the occurrence, recurrence, or spread of releases due to the emergency situation, as described in 20.4.1.500 NMAC (incorporating 40 CFR §264.56 (e)). The WIPP Emergency Response procedures utilize the incident mitigation guidelines in NFPA 471, Responding to Hazardous Materials Incidents, with initial response priority being on control, and those actions necessary to ensure confinement and containment (the first line of defense) in the early, critical stages of a spill or leak. The RCRA Emergency Coordinator is responsible for stopping processes and operations when necessary, and removing or isolating containers. TRU mixed waste will remain within the WHB Unit, the Parking Area Unit, and the underground HWDU. Containers undergoing confirmation will be placed on facility or containment pallets and moved to appropriate locations.
G-3	G-3	35-41	Revised to describe the movement of waste during the confirmation process.	Each facility pallet will accommodate four seven (7)-packs of 55-gallon drums, four SWBs, four four (4)-packs of 85-gallon drums,

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				four three (3)-packs of 100-gallon drums, two TDOPs, or any combination thereof. Waste containers will be secured to the facility pallet or containment pallet prior to transfer. The pallet will be moved to an appropriate location and the waste assemblies on the pallet will be tagged to indicate it is unconfirmed waste and cannot be placed in the repository. If radiography is required for confirmation, and once it is determined which containers are to be radiographed the waste will be transported to the TMF for radiography and, when radiography is completed, returned to an appropriate staging location. Once the confirmation is approved the tags will be removed to indicate the waste stream is acceptable for storage and emplacement and the container(s) will be transferred from the containment pallet to a facility pallet as needed. A forklift or facility transfer vehicle will transport the loaded facility pallet to the air lock at the Waste Shaft (Figure G-3). The facility transfer vehicle will be driven onto the waste hoist deck, where the loaded facility pallet will be transferred to the waste hoist and downloaded for emplacement.
Figure G-3	G-15		Reinserted Figure G-3 to show waste movement during the confirmation process.	Figure G-3 is attached.
H1	H1-38	15-17	The Permittees believe that this additional education requirement is unnecessary. The most appropriate background for a Visual Examination Expert (VEE) is previous experience in the generation and packaging of TRU mixed waste. These personnel may not have any college level education. The added educational requirement may eliminate well qualified individuals from being selected as VEEs. The Permittees request that the requirement for two years of college-level education be deleted.	**Requisite Skills, Experience and Education:** Academic or vocational high school diploma or equivalent~~, plus two years of college-level technical study with courses in nuclear waste management and health physics, or equivalent~~.
I - Introduction	I-1	2-25	Revised to include holding areas that must undergo closure.	This Permit Attachment contains the Closure Plan that describes the activities necessary to close the Waste Isolation Pilot Plant (**WIPP**) individual units and facility. Since the current plans for operations extend over several decades, the Permittees will periodically reapply for an operating permit in accordance with Title 20 of the New Mexico Administrative Code, Chapter 4, Part 1 (**20.4.1 NMAC**), Subpart 900 (incorporating 40 CFR §270.10(h)). Consequently, this Closure Plan describes several types of

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				closures. The first type is panel closure, which involves constructing closures in each of the underground hazardous waste disposal units (**HWDUs**) after they are filled. The second type is partial closure, which can be less than the entire facility and therefore less than an entire unit as described herein for the Waste Handling Building (**WHB**) Unit and the Parking Area Unit (**PAU**). The third type of closure is final facility closure at the end of the Disposal Phase, which will entail "clean" closure of all remaining surface storage units and construction of the four shaft seal systems. Finally, in the event a new permit is not issued prior to expiration of an existing permit, a modification to this Closure Plan will be sought to perform contingency closure. Contingency closure defers the final closure of waste management facilities such as the Waste Handling Building Container Storage Unit (**WHB Unit**), Holding Areas, the conveyances, the shafts, and the haulage ways because these will be needed to continue operations with non-mixed Transuranic (**TRU**) waste. The hazardous waste management units (**HWMUs**) addressed in this Closure Plan includes the aboveground HWMU in the WHB, the parking area HWMU, TRU mixed waste holding areas and Panels 1 through 7, each consisting of seven rooms.
I-1	I-2	9-20	Revised to include holding areas that must undergo closure.	This Closure Plan is prepared in accordance with the requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264 Subparts G, I, and X), Closure and Post-Closure, Use and Management of Containers, and Miscellaneous Units. The WIPP underground HWDUs, including Panels 1 through 7 on Figure I-1, will be closed under this permit to meet the performance standards in 20.4.1.500 NMAC (incorporating 40 CFR §264.601). The WIPP surface facilities, including Waste Handling Building Container Storage Unit, the Waste Handling Building Holding Areas, the TMF Holding Area, the Parking Area Holding Area and the Parking Area ~~Container~~ Storage Unit, will be closed in accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.178). The Permittees may perform partial closure of the WHB and PAU HWMUs prior to final facility closure and certification. For final facility closure, this plan also includes closure of future waste disposal areas including Panels 8 through 10 and closure and

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				sealing of the facility shafts in accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.601).
I-1a(1)	I-3 and I-4	29-40, 1-9	Revised to include areas that must undergo partial closure so that these areas may be designated as holding areas and included editorial comments.	Container Storage Units and Holding Areas Final or partial closure of the permitted container storage units (the Waste Handling Building Unit and Parking Area Unit and Holding Areas) will be accomplished by removing all waste and waste residues. Indication of waste contamination will be based, among other techniques, on the use of radiological surveys as described in Permit Attachment I3. Radiological surveys use very sensitive radiation detection equipment to indicate if there has been a potential release of TRU mixed waste, including hazardous waste components, from a container. This allows the Permittees to indicate potential releases that are not detectable from visible evidence such as stains or discoloration. Visual inspection and operating records will also be used to identify areas where decontamination is necessary. Contaminated surfaces will be decontaminated until radioactivity is below free release limits. Once surfaces are determined to be free of radioactive waste constituents, they will be tested for hazardous waste contamination. These surface decontamination activities will ensure the removal of waste residues to levels protective of human health and the environment. The facility is expected to require no decontamination at closure because any waste spilled or released during operations will be contained and removed immediately. Solid ~~w~~Waste ~~m~~Management ~~u~~Units ~~associated~~ described in Permit Module VII will be subject to closure. In the event portions of these units which require decontamination cannot be decontaminated, these portions will be removed and the resultant wastes will be managed as appropriate~~ly~~. Once the container storage units and holding areas are decontaminated and certified by the Permittees to be clean, no further maintenance is required. The facilities and equipment in these units will be reused for other purposes as needed. Figure I-2 includes the schedule for closure of container storage units and holding areas as well as a schedule for conversion of the

<table>
<tr><th>Att/Module and Section</th><th>Page</th><th>Line</th><th>Comment</th><th>Proposed Change to Draft Permit</th></tr>
<tr><td></td><td></td><td></td><td></td><td>TRUDOCK Storage Area and a portion of the Parking Area Unit to waste holding areas.</td></tr>
<tr><td>I-1c</td><td>I-6</td><td>11-15</td><td>Changed to be consistent with capacities in Table IV.A.1. in Module IV, and Section XII in Attachment O.</td><td>The maximum volume of TRU mixed waste in a disposal panel is established in Module IV, Table IV.A.1. For closure planning purposes, a maximum achievable volume of 732,250 ft^3 (20,735 m^3) of TRU mixed waste per panel is used. This equates to ~~662,400~~ 662,150 ft^3 (18,750 m^3) of contact-handled (CH) TRU mixed waste and 70,100 ft^3 (1,985 m^3) of RH TRU mixed waste per panel.</td></tr>
<tr><td>I-1c</td><td>I-6</td><td>20-28</td><td>Revised to include holding areas as areas that will be used during the term of the Permit.</td><td>The maximum extent of operations during the term of this permit is expected to be Panels 1 through 7 as shown on Figure I-1, the WHB Container Storage Unit, ~~and~~ the Parking Area Container Storage Unit, and the holding areas. Note that panels 8, 9, and 10 are scheduled for excavation only under the initial term of this permit. If other waste management units are permitted during the Disposal Phase, this Closure Plan will be revised to include the additional waste management units. At any given time during disposal operations, it is possible that multiple rooms may be receiving TRU mixed waste for disposal at the same time. Underground HWDUs in which disposal has been completed (i.e., in which CH and RH TRU mixed waste emplacement activities have ceased) will undergo panel closure.</td></tr>
<tr><td>Table I-2</td><td></td><td>1st Row</td><td>Revised table to allow partial closure of areas in the WHB as necessitated by the use of holding areas.</td><td>
<table>
<tr><th rowspan="2">ACTIVITY</th><th colspan="2">~~FINAL FACILITY CLOSURE~~</th></tr>
<tr><th>START</th><th>STOP</th></tr>
<tr><td>Notify NMED of Intent to Perform Partial Closure of the WHB and PAU Storage Areas (TRUDOCK Storage Area and portion of the Parking Area Storage Unit)</td><td>Prior to Initiating Radiography Activities at WIPP</td><td>N/A</td></tr>
</table>
</td></tr>
</table>

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit			
Table I-2		2nd Entry	Revised table to allow partial closure of areas in the WHB as necessitated by the use of holding areas.	Complete Closure of TRUDOCK Storage Area and Portion of the Parking Area Storage Unit • Review of records with regard to spills and releases • Performing contamination surveys taking samples as needed • Decontaminating as needed • Performing final contamination surveys if needed • Documenting closure	Upon Issuance of modified Permit authorizing use of those areas for Waste Holding (Assumed to be May 2006)	Within 6 weeks of start	
Table I-2		4th Entry	Revised table to allow partial closure of areas in the WHB as necessitated by the use of holding areas.	Perform Contamination Surveys in both Surface Storage Areas and Holding Areas	October 2030	April 2031	
Table I-2		6th and 7th Entries	Revised table to allow partial closure of areas in the WHB as necessitated by the use of holding areas.	Decontamination as Necessary of both Surface Storage Areas and Holding Areas	June 2031	January 2032	
				Final Contamination Surveys of both Surface Storage Areas and Holding Areas	February 2032	September 2032	
Table I-2		9th Entry	Revised table to allow partial closure of areas in the WHB as necessitated by the use of holding areas.	Prepare and Submit ~~Container Management Unit~~ Surface Storage Areas and Holding Areas Closure Certification	February 2033	May 2033	
INTRO.	M-1	5-12	Revised to describe the use of holding areas at WIPP.	Module III of the permit authorizes the storage and management of contact-handled (**CH**) and remote-handled (**RH**) TRU mixed waste containers in the Waste Handling Building Container Storage Unit (**WHB Unit**) and Parking Area Container Storage Units (**Parking Area Unit**); the holding and management of CH TRU Mixed Waste in the Waste Handling Building Holding Areas, Room 108 and Airlock 107 Holding Areas, TRUDOCK Holding Area, TRUPACT			

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				Maintenance Facility (**TMF**) Holding Area and the Holding and Management of CH and RH TRU mixed waste in the Parking Area Holding Area. The technical requirements of 20.4.1.500 NMAC (incorporating 40 CFR §§264.170 to 264.178) are applied to the operation of the WHB Unit and the Parking Area Unit. Permit Attachment M1 describes the holding areas, container storage units, the TRU mixed waste management facilities and operations, and compliance with the technical requirements of 20.4.1.500 NMAC.
Table of Cont.	M1-ii		Deleted figures M1-7, M1-9, and M1-14 as the information is already specified in figures M1-1 and/or M1-1a.	M1-7 ~~Waste Handling Building - Facility Pallet Temporary Storage Area~~ Reserved M1-8a TRUPACT-II Shipping Container for CH Transuranic Mixed Waste (Schematic) M1-8b HalfPACT Shipping Container for CH Transuranic Mixed Waste (Schematic) M1-9 ~~Configuration of Contact-Handled Transuranic Mixed Waste Unloading Docks in the Waste Handling Building~~ Reserved M1-10 Facility Pallet for Seven-Pack of Drums M1-10a Typical Containment Pallet M1-11 Facility Transfer Vehicle (Example) with Seven-Packs and Facility Pallet M1-12 TRUPACT-II Containers on Trailer M1-13 WIPP Facility Surface and Underground CH Transuranic Mixed Waste Process Flow Diagram M1-14 ~~Waste Handling Building Plan (Ground Floor)~~ Reserved
INTRO.	M-1	2-10	Revised to add holding areas to WIPP waste management facilities.	Management and storage of transuranic (**TRU**) mixed waste in the Waste Isolation Pilot Plant (**WIPP**) facility is subject to regulation under Title 20 of the New Mexico Administrative Code, Chapter 4, Part 1 (20.4.1 NMAC), Subpart V. The technical requirements of 20.4.1.500 NMAC (incorporating 40 CFR §§264.170 to 264.178 are applied to the operation of the Waste Handling Building Container Storage Unit (**WHB Unit**)(Figure M1-1), the Waste Handling Building Holding Area, TRUDOCK Holding Area, Room 108 and Airlock 107 Holding Areas, TRUPACT Maintenance Facility (**TMF**) Holding Area, the Parking Area Holding Area and the Parking Area

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				Container Storage Unit (**Parking Area Unit**)(Figure M1-2). This Permit Attachment describes the container storage units; the TRU mixed waste management facilities and operations, and compliance with the technical requirements of 20.4.1 NMAC. The configuration of the WIPP facility consists of completed structures, including all buildings and systems for the operation of the facility.
M1-1a	M1-1	16-23	Revised text to indicate how non-conforming waste will be managed.	The Permit Treatment, Storage, and Disposal Facility (**TSDF**) Waste Acceptance Criteria (**WAC**) and the Waste Analysis Plan (Permit Attachment B) prohibit the shipment of liquid waste to the WIPP. This prohibition is enforced as a maximum residual liquids requirement. In no case shall the total liquid equal or exceed one volume percent of the waste container (e.g., drum, standard waste box [**SWB**], or canister). Since the maximum amount of liquid is one percent, calculations made to determine the secondary containment as required by 20.4.1.500 NMAC (incorporating §264.175) are based on ten percent of one percent of the volume of the containers, or one percent of the largest container, whichever is greater. Any container which through confirmation, is determined to contain total liquids that are equal to or greater than one volume percent of the waste container will be tagged as a non-conforming container and placed in an appropriate location until returned to a generator/storage site or sent off-site for remediation.
M1-1c(1)	M1-4	21-29	Revised square footage available for storage of waste at WIPP and described the areas now designated as holding areas. Editorial comment to add closing parenthesis.	The Waste Handling Building (**WHB**) is the surface facility where TRU mixed waste handling activities will take place (Figure M1-1). The WHB has a total area of approximately 84,000 square feet (ft^2) (7,804 square meters (m^2)) of which ~~25,650~~ 20.914.5 ft^2 (~~2,383~~1,945.7 m^2) are designated for ~~the waste handling and~~ container storage of CH TRU mixed waste and 17,403 ft^2 (1,617 m^2) are designated for handling and storage of RH TRU mixed waste, as shown in Figures M1-1 and M1-17a, b and c. These areas are being permitted as the WHB Unit. The concrete floors are sealed with a coating that is sufficiently impervious to the chemicals in TRU mixed waste to meet the requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.175(b) (1)). Waste Handling Building and TMF Holding Areas The Waste Handling Building Holding Areas include the WHB

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				Holding Area, Room 108 and Airlock 107 Holding Areas, TMF Holding Area and TRUDOCK Holding Area (Figure M1-1). These areas are designed to allow holding of CH TRU mixed waste until the requirements for confirmation of Permit Attachment B7 have been met but not to exceed ten (10) days (plus sixty (60) additional days for non-compliant waste).
M1-1c(1)	M1-4 and M1-5	31-37, 1-37	Revised to describe holding areas and describe the waste confirmation process at WIPP. Revised to allow the use of radiography scans as a means of waste confirmation.	The Contact-Handled Packages used to transport TRU mixed waste containers will be received through one of three air-lock entries to the CH Bay of the WHB Unit. The WHB heating, ventilation and air conditioning (**HVAC**) system maintains the interior of the WHB at a pressure lower than the ambient atmosphere to ensure that air flows into the WHB, preventing the inadvertent release of any hazardous or radioactive constituents contamination as the result of a contamination event. The doors at each end of the air lock are interlocked to prevent both from opening simultaneously and equalizing CH Bay pressure with outside atmospheric pressure. The CH Bay houses two TRUPACT-II Docks (**TRUDOCKs**), each equipped with overhead cranes for opening and unloading Contact-Handled Packages. The TRUDOCKs are within the TRUDOCK ~~Storage~~ Holding Area of the WHB Unit. The cranes are rated to lift the Contact-Handled Packaging lids as well as their contents. The cranes are designed to remain on their tracks and hold their load even in the event of a design-basis earthquake. Upon receipt and removal of CH TRU mixed waste containers from the Contact-Handled Packaging, the waste containers are required to be in good condition as provided in Permit Module III. The waste containers will be visually inspected for physical damage (severe rusting, apparent structural defects, signs of pressurization, etc.) and leakage to ensure they are good condition prior to holding, confirmation, or storage. Waste containers will also be checked for external surface contamination. If a primary waste container is not in good condition, the Permittees will overpack the container, repair/patch the container in accordance with 49 CFR §173 and §178 (e.g., 49 CFR §173.28), or return the container to the

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				generator. The Permittees may initiate local decontamination, return unacceptable containers to a DOE generator site or send the Contact-Handled Package to the third party contractor. Decontamination activities will not be conducted on containers which are not in good condition, or which are leaking. If local decontamination activities are opted for, the work will be conducted in the WHB Unit on the TRUDOCK. These processes are described in Section M1-1d. ~~The area previously designated as the Overpack and Repair Room will not be used for TRU mixed waste management in any instances.~~ Once unloaded from the Contact-Handled Packaging, CH TRU mixed waste containers (7-packs, 3-packs, 4-packs, SWBs, or TDOPs) are placed in one of two positions on the facility pallet or on a containment pallet if destined for confirmation. The waste containers are stacked, on the facility pallets (one- or two-high, depending on weight considerations). Waste on containment pallets will be stacked one-high. The use of facility or containment pallets will elevate the waste at least 6 in. (15 cm) from the floor surface. Pallets of waste requiring confirmation will then be relocated to one of the approved Holding Areas while the confirmation requirements of Attachment B7 are met. ~~the CH Bay Storage Area of the WHB Unit for normal storage. This CH Bay Storage Area, which is shown in Figure M1-7, will be clearly marked to indicate the lateral limits of the storage area. This CH Bay Storage Area will have a maximum capacity of seventeen pallets (5,440 ft^3 [154 m^3]) of TRU mixed waste containers during normal operations.~~ These pallets will typically be ~~staged~~ placed in ~~this~~ a holding area for ~~a period of up to five~~ no more than ten (10) days. Holding Areas are the TRUDOCK Holding Area, the WHB Holding Area, Room 108 and Airlock 107 Holding Areas, and the TMF Holding Area. During this time period 7 percent of the containers from each waste stream in each shipment will undergo confirmation as defined in Attachment B7. Confirmation of CH TRU mixed waste will occur either via radiography, review of radiography scans, visual examination (**VE**) or through a review of the VE records.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				Confirmation of RH TRU mixed waste will occur through a review of VE records. Each unconfirmed container assembly will be tagged to indicate that confirmation has not occurred. No containers from an unconfirmed waste stream in an unconfirmed shipment can be placed in the repository. Containers will be randomly selected to undergo confirmation. The selected containers will be located and, if confirmation is to be performed via radiography, the selected container will be placed on a containment or facility pallet for transport to the radiography equipment. While in transit to the radiography equipment and during the confirmation process, secondary containment will be provided by containment pallets or by the containment capability integral to the handling and processing equipment. After confirmation is complete the container will be returned to the appropriate holding area. Waste stream shipments may not be disposed until the confirmation data are approved in accordance with Attachment B7 of this HWFP. Waste that does not meet the requirements specified in Attachment B7 will be considered as non-conforming waste and will be held in an appropriate holding area while the discrepancy is resolved. Non-conforming waste may remain in the holding area for up to sixty (60) days from the date the non-conformance was discovered. If the non-conformance cannot be resolved with the generator site, the non-conforming waste will either be: • resolved with the generator/storage site • returned to the generator/storage site • sent to another DOE facility for remediation • sent to an approved third party site for remediation Regardless of the resolution, the Permittees will notify the Secretary within twenty-four (24) hours from the time the discrepancy was discovered that a non-conforming waste is at the WIPP facility.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				Manifest discrepant payloads will be placed in an appropriate holding area in the WHB where they will be tagged and segregated from waste which is approved for emplacement or inside a Contact Handled Package, depending on when the discrepancy is discovered. The waste containers will be elevated off of the floor surface by means of either a facility or containment pallet unless inside a Contact Handled Package. ~~In addition, four Contact-Handled Packages, containing up to eight 7-packs, 3-packs, 4-packs, SWBs, or four TDOPs, may occupy the staging positions at the TRUDOCK Storage Area of the WHB Unit. If waste containers are left in this area, they will be in the Contact-Handled Package with or without the shipping container lids removed. The maximum volume of waste in containers in four Contact-Handled Packages is 640 ft^3 (18.1 m^3).~~
M1-1c(1)	M1-6	4-10	The Permittees disagree that discrepant loads be restricted to being placed in the Shielded Storage Area. The Shielded Storage Area should be reserved for waste that upon radioactivity monitoring, displays a dose rate that warrants placement in the Shielded Storage Area in accordance with ALARA practices. Manifest discrepant loads with lower dose rates should not be restricted to placement in the Shielded Storage Area. These containers will be procedurally managed with the necessary postings and controls to conspicuously identify the load as discrepant. The Permittees previously proposed the Shielded Storage Area in order to avoid using the limited storage capacity in the NE Storage Area for such loads. With the proposed addition of storage capacity and holding areas there is sufficient room to manage discrepant loads outside the Shielded Storage Area without adversely impacting throughput.	~~An area has also been designated for the temporary storage of waste containers for which manifest discrepancies were noted after the Contact-Handled Package was opened. Discrepant payloads will be placed either in the Shielded Storage Area of the WHB Unit on a facility pallet or inside a Contact-Handled Package, depending on when the discrepancy is discovered. In either case the waste containers will be elevated approximately six inches from the floor surface. The storage capacity of this area is one pallet load of TRU mixed waste containers (i.e., 4 SWBs, 2 TDOPs, or 28 drums, or combinations of all three).~~
M1-1c(1)	M1-6	11-15	Revised to include aisle space requirements for the holding areas.	Aisle space shall be maintained in all WHB Unit TRU mixed waste storage and holding areas. The aisle space shall be adequate to

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				allow unobstructed movement of fire-fighting personnel, spill-control equipment, and decontamination equipment that would be used in the event of an off-normal event. An aisle space of 44 in. (1.1 m) between facility pallets will be maintained ~~in all WHB Unit TRU mixed waste storage areas~~.
M1-1c(1)	M1-6	30-32	Revised to add holding areas.	The following are the major pieces of equipment that will be used to manage CH TRU mixed waste in the container holding or storage units. A summary of equipment capacities, as required by 20.4.1.500 NMAC is included in Table M1-2.
M1-1c(1)	M1-7	10	Revised figure reference.	Each TRUDOCK is designed to accommodate up to two Contact-Handled Packages. The TRUDOCK functions as a work platform, providing TRU mixed waste handling personnel easy access to the container during unloading operations (see Figure ~~M1-9~~ M1-1a).
M1-1c(1)	M1-8	26	Corrected volume in the RH Bay.	A maximum of two loaded casks ~~(147 ft^3 (4.2 m^3))~~ and one 55-gallon drum for derived waste (155 ft^3 (4.4 m^3)) may be stored in the RH Bay.
M1-1c(1)	M1-8	33-38	The Permittees believe that the description of the RH facility canister should be relocated to Permit Attachment M1, Section M1-1c(1) *Waste Handling Building Container Storage Unit.* The description of the RH Facility Canister in Module III.C.1, *Acceptable Storage Containers*, is inappropriate because the containers identified in that section must be DOT approved containers. The RH Facility Canister is not a DOT-7A container, but holds DOT-7A containers. As a handling device for RH TRU mixed waste containers, the description of the RH Facility Canister belongs in Permit Attachment M1, where the other RH TRU mixed waste container handling devices are described.	The Hot Cell (Figure M1-17b) is a concrete shielded room in which drums of RH TRU mixed waste will be transferred remotely from the CNS 10-160B cask, staged in the Hot Cell, and loaded into a RH ~~f~~Facility ~~c~~Canister. The loaded RH ~~f~~Facility ~~c~~Canister is then lowered from the Hot Cell into the Transfer Cell shuttle car containing a shielded insert. Storage in the Hot Cell occurs in either drums or facility canisters. Drums that are stored are either on the drum carriage unit that was removed from the CNS 10-160B cask or in a RH ~~f~~Facility ~~c~~Canister. The RH Facility Canister is not a payload container but rather a payload container handling device designed to hold and accommodate disposal of up to three 55-gallon drums.
M1-1c(1)	M1-8	39	Corrected volume in the Hot Cell.	A maximum of 10 drums and 6 loaded facility canisters ~~(262 ft^3 (7.4 m^3))~~ and one 55-gallon drum for derived waste (215 ft^3 (6.1 m^3)) may be stored in the Hot Cell.
M1-1c(2)	M1-11	24	Revised to indicate correct volume in the Parking Area Unit.	The Parking Area Unit provides storage space for up to ~~7,160~~ 8,525 ft^3 (~~203~~ 241.4 m^3) of TRU mixed waste, contained in up to 50 loaded Contact-Handled Packages and 14 Remote-Handled Packages.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
M1-1d(2)	M1-14	1-14	Clarified that the TRUDOCK area is a holding area.	CH TRU mixed waste containers will arrive by tractor-trailer at the WIPP facility in sealed shipping containers (e.g., TRUPACT-IIs or HalfPACTs) (see Figure M1-12), at which time they will undergo security and radiological checks and shipping documentation reviews. A forklift will remove the Contact-Handled Packages and will transport them a short distance through an air lock that is designed to maintain differential pressure in the WHB. The forklift will place the shipping containers at one of the two TRUDOCKs in the TRUDOCK ~~Storage~~ Holding Area of the WHB Unit, where an external survey of the Contact-Handled Package inner vessel (see Figure M1-8a and M1-8b) will be performed as the outer containment vessel lid is lifted. The inner vessel lid will be lifted under the TRUDOCK Vent Hood System (**VHS**), and the contents will be surveyed during and after this lift. The TRUDOCK VHS is attached to the Contact-Handled Package to provide atmospheric control and confinement of headspace gases at their source. It also prevents potential personnel exposure and facility contamination due to the spread of radiologically contaminated airborne dust particles and minimizes personnel exposure to VOCs.
M1-1d(2)	M1-15	22-28	Clarified that containers must undergo confirmation before emplacement in the underground.	**For waste containers**, the analyses becomes documentation of the condition of the container at the time of emplacement. The presence of hazardous waste constituents on a container after decontamination will be at trace levels and will likely not be visible and will not pose a threat to human health or the environment. These containers will undergo confirmation and, after confirmation approval, be placed in the underground without further action once the radiological contamination is removed unless there is visible evidence of hazardous waste spills or hazardous waste on the container and this contamination is considered likely to be released prior to emplacement in the underground.
M1-1d(2)	M1-16	1-14	Clarified that containers must undergo confirmation before emplacement in the underground.	Small area decontamination, if needed, will occur in the area in which it is detected for contamination that is less than 6 ft^2 (0.56 m^2) in area and is less than 100 times the free release limit. The free release limit is defined by DOE Orders as alpha contamination less than 20 dpm/100 cm^2 and beta-gamma contamination less than 200 dpm/100 cm^2. Overpacking would occur in the event the WIPP staff damages an otherwise intact container during handling activities. In such a case, a radiological boundary will be

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				established, inside which all activities are carefully controlled in accordance with the protocols for the cleanup of spills or releases. A plan of recovery will be developed and executed, including overpacking the damaged container in either a 85-gal (321 L) drum, SWB, or a TDOP. The overpacked container will be properly labeled and sent underground for disposal once the shipment it is associated with is confirmed. The area will then be decontaminated and verified to be free of contamination using both radiological and hazardous waste sampling techniques (essentially, this is done with "swipes" of the surface for counting in sensitive radiation detection equipment or, if no radioactivity is present, by analysis for hazardous waste by an offsite laboratory).
M1-1d(2)	M1-16	22-25	Clarified that any container that is sent to a site for decontamination/repair, the repairing site must be able to perform confirmation activities prior to return of the container to WIPP.	● Shipment to another DOE site for management in the event the original shipper does not have suitable facilities for decontamination. If the repairing site wishes to return the waste to WIPP, the ~~site~~ shipment will have to meet the ~~characterization~~ confirmation requirements of the WAP.
M1-1d(2)	M1-17	5-9	Revised draft Permit to describe the confirmation process at WIPP.	Each waste stream in each shipment will also undergo confirmation to assure that there is no ignitable, corrosive or reactive waste present. Confirmation of CH-TRU mixed waste will occur either via radiography, a review of radiography scans, VE or through a review of the VE records in each shipment. Containers that have not been confirmed will be held in an appropriate holding area. Each unconfirmed container assembly will be tagged to indicate that confirmation has not occurred. No containers from an unconfirmed waste stream in a shipment can be placed in the repository. Containers will be randomly selected to undergo confirmation. The selected containers will be located and, if confirmation is to be performed via radiography the selected container will be placed on a facility or containment pallet for transport to the radiography equipment. After confirmation is complete the container will be returned to the appropriate holding area. Waste stream shipments may not be disposed until the confirmation data are approved in accordance with Attachment B7 of this HWFP. If the confirmation results are not approved following options available are:

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				• Confirm all other containers within that shipment, • The Contact-Handled Package can be returned to a generator/storage site for remediation of the container. Such waste would have to be re-approved prior to shipment to the WIPP, • Shipment to another off-site facility for management. If the site wishes to return the waste to WIPP, the waste will have to meet the waste characterization requirements of the HWFP WAP. For inventory control purposes, TRU mixed waste container identification numbers will be verified against the Uniform Hazardous Waste Manifest and the WWIS. Inconsistencies will be resolved with the generator before TRU mixed waste is emplaced. Discrepancies that are not resolved within 15 days will be reported to the NMED in accordance with 20.4.1.500 NMAC (incorporating 40 CFR §264.72).
M1-1d(2)	M1-17	10-21	Clarified that containers must undergo confirmation before emplacement in the underground.	Each facility pallet has two recessed pockets to accommodate two sets of 7-packs, two sets of 4-packs, two sets of 3-packs, or two SWBs stacked two-high, two TDOPs, or any combination thereof. After confirmation each ~~Each~~ stack of waste containers will be secured prior to transport underground (see Figure M1-10). A forklift or the facility transfer vehicle will transport the loaded facility pallet to the conveyance loading room located adjacent to the Waste Shaft. The conveyance loading room serves as an air lock between the CH Bay and the Waste Hoist Shaft, preventing excessive air flow between the two areas. The facility transfer vehicle will be driven onto the waste hoist deck, where the loaded facility pallet will be transferred to the waste hoist, and the facility transfer vehicle will be backed off. Containers of CH TRU mixed waste (55-gal (208 L) drums, SWBs, 85-gal (321 L) drums, 100-gal (379-L) drums, and TDOPs) can be handled individually, if needed, using the forklift and lifting attachments (i.e., drum handlers, parrot beaks).

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
M1-1d(3)	M1-17	25-41	Clarified that RH TRU waste will be placed in the Parking Area Holding Area after receipt.	The RH TRU mixed waste will be received in the RH-TRU 72-B cask or CNS 10-160B cask loaded on a trailer, as illustrated in process flow diagrams in Figures M1-26 and M1-27, respectively. These are shown schematically in Figures M1-28 and M1-29. Upon arrival at the gate, external radiological surveys, security checks, and shipping documentation reviews are performed. Upon completion of these checks, the Uniform Hazardous Waste Manifest is signed, and the generator's copy of the Uniform Hazardous Waste Manifest is returned to the generator. Should the surface dose rate exceed acceptable levels, the shipping cask and transport trailer remain outside the WHB in the Parking Area Holding Area ~~Unit~~, and the appropriate radiological boundaries (i.e., ropes, placards) are erected around the shipping cask and transport trailer. A determination will be made whether to return the cask to the originating site or to decontaminate the cask. Following cask inspections, the shipping cask and trailer are moved into the RH Bay or held in the Parking Area Holding Area ~~Unit.~~ The waste handling process begins in the RH Bay where the impact limiter(s) are removed from the shipping cask while it is on the trailer. Additional radiological surveys are conducted on the end of the cask previously protected by the impact limiter(s) to verify the absence of contamination. The cask is unloaded from the trailer using the RH Bay Overhead Bridge Crane and placed on a Cask Transfer Car.
M1-1d(3)	M1-20	10-17	Clarified that RH TRU waste will be placed in the Parking Area Holding Area after receipt.	For canisters received at the WIPP from the generator site in a RH-TRU 72-B cask, the identification number is verified using cameras, which also provide images of the canister surfaces during the lifting operation. Identification numbers are verified against the WWIS. If there are any discrepancies, the canister is returned to the RH-TRU 72-B cask, returned to the Parking Area ~~Staging~~ Holding Area, and the generator is contacted for resolution. Discrepancies that are not resolved within 15 days will be reported to the NMED as required by 20.4.1.500 NMAC (incorporating 40 CFR §264.72). As the canister is being lifted from the RH-TRU 72-B cask into the facility cask, additional swipe samples may be taken.
M1-1e	M1-20	38-39	Clarified that inspections are required in both storage and holding areas.	Inspection of containers and container storage ~~area~~ and holding areas are required by 20.4.1.500 NMAC (incorporating 40 CFR

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				§264.174). These inspections are described in this section.
M1-1e(1)	M1-21	1-19	Clarified that inspections are required in both storage and holding areas.	M1-1e(1) WHB and TMF Units The waste containers in storage or holding within the WHB or holding in the TMF will be inspected visually or by closed-circuit television camera prior to each movement and, at a minimum, weekly, to ensure that the waste containers are in good condition and that there are no signs that a release has occurred. Waste containers will be visually inspected for physical damage (severe rusting, apparent structural defects, signs of pressurization, etc.) and leakage. If a primary waste container is not in good condition, the Permittees will overpack the container, repair/patch the container in accordance with 49 CFR §173 and §178 (e.g., 49 CFR §173.28), or return the container to the generator. This visual inspection of CH TRU mixed waste containers shall not include the center drums of 7-packs and waste containers positioned such that visual observation is precluded due to the arrangement of waste assemblies on the facility pallets. If waste handling operations should stop for any reason with containers located in the TRUDOCK ~~Storage~~ Holding Area in the Contact-Handled Package, primary waste container inspections will not be accomplished until the containers of waste are removed from the Contact-Handled Package. If the lid to the Contact-Handled Package inner container vessel is removed, radiological checks (swipes of Contact-Handled Package inner surfaces) will be used to determine if there is contamination within the Contact-Handled Package. Such contamination could indicate a waste container leak or spill. Using radiological surveys, a detected spill or leak of a radioactive contamination from a waste container will also be assumed to be a hazardous waste spill or release.
M1-1e(2)	M1-21	34-42	Clarified that inspections are required in both storage and holding areas.	M1-1e(2) Parking Area Unit and Parking Area Holding Area Inspections will be conducted in the Parking Area Unit and Parking Area Holding Area at a frequency not less than once weekly when waste is present. These inspections are applicable to loaded, stored Contact-Handled and Remote-Handled Packages. The perimeter fence located at the lateral limit of the Parking Area Unit,

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				coupled with personnel access restrictions into the WHB, will provide the needed security. The perimeter fence and the southern border of the WHB shall mark the lateral limit of the Parking Area Unit and Parking Area Holding Area (Figure M1-2). Inspections of the Contact-Handled or Remote-Handled Packages stored in the Parking Area Unit and Parking Area Holding Area will focus on the inventory and integrity of the shipping containers and the spacing between Contact-Handled and Remote-Handled Packages. This spacing will be maintained at a minimum of four feet.
M1-1e(2)	M1-22	1-2	Clarified that inspections are required in both storage and holding areas.	Contact-Handled and Remote-Handled Packages located in the Parking Area Unit and Parking Area Holding Area will be inspected weekly during use and prior to each reuse.
M1-1f	M1-23	11-39	Described secondary containment in both the storage and holding areas and removed reference to deleted figure.	The WHB Unit, WHB Holding Areas, and TMF Holding Area ~~has~~ have concrete floors, which are sealed with a coating that is designed to resist all but the strongest oxidizing agents. Such oxidizing agents do not meet the TSDF-WAC and will not be accepted in TRU mixed waste at the WIPP facility. Therefore, TRU mixed wastes pose no compatibility problems with respect to the WHB Unit floor. The floor coating consists of Carboline® 1340 clear primer-sealer on top of prepared concrete, Carboline® 191 primer epoxy, and Carboline® 195 surface epoxy. The manufacturer's chemical resistance guide shows "Very Good" for acids and "Excellent" for alkalies, solvents, salt, and water. Uses are indicated for nuclear power plants, industrial equipment and components, chemical processing plants, and pulp and paper mills for protection of structural steel and concrete. During the Disposal Phase, should the floors need to be re-coated, any floor coating used in the WHB Unit TRU mixed waste handling areas will be compatible with the TRU mixed waste constituents and will have chemical resistance at least equivalent to the Carboline® products. ~~Figure M1-14 shows where TRU mixed waste handling activities discussed in this section occur.~~ During normal operations, the floor of the storage areas within the WHB Unit and WHB and TMF Holding Areas shall be visually inspected on a weekly basis to verify that it is in good condition and free of obvious cracks and gaps. Floor areas of the WHB Unit and WHB and TMF Holding Areas in use during off-normal events will

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				be inspected prior to use and weekly thereafter. All TRU mixed waste containers located in the permitted storage areas and WHB and TMF Holding Areas shall be elevated at least 6 in. (15 cm) from the surface of the floor. TRU mixed waste containers that have been removed from Contact-Handled or Remote-Handled Packaging shall be ~~stored~~ placed at a designated storage area or WHB and TMF Holding Area ~~inside the WHB Unit~~ so as to preclude exposure to the elements. Secondary containment at the CH Bay Storage Area, Room 108 and Airlock 107 Holding Areas, WHB Holding Area, TMF Holding Area and the Shielded Storage Area ~~inside the WHB Unit~~ shall be provided by the WHB Unit floor (See Figure M1-1). ~~The WHB Unit is~~ These areas are engineered such that during normal operations, the floor capacity is sufficient to contain liquids upon release. Secondary Containment at the Derived Waste Storage Area of the WHB Unit will be provided by a polyethylene standard drum pallet. The Parking Area Unit, Parking Area Holding Area and TRUDOCK ~~Storage~~ Holding Area ~~of the WHB Unit~~ require no engineered secondary containment since no waste is to be stored there unless it is protected by the Contact-Handled or Remote-Handled Packaging.
M1-1f(1)	M1-24	11-41	Secondary containment calculations have been revised based upon the addition of holding areas and the revised storage capacity in the CH Bay Storage Area. Increased the largest container to a TDOP having a capacity of 1,200 gallons.	M1-1f(1) Secondary Containment Requirements for the Indoor Storage and Holding Areas ~~the WHB Unit~~ The maximum volume of TRU mixed waste on facility pallets that will be stored in the CH Bay Storage Area, and Shielded Storage Area of the WHB is ~~18~~ 16 facility pallets @ 2 TDOPs per pallet = ~~36~~ 32 TDOPs of waste. ~~36~~ 32 TDOPs @ 1,200 gal (4,540 L) per TDOP = ~~43,200~~ 38,400 gal (~~163,440~~ 145,280 L) of total waste volume ~~waste container capacity~~. ~~43,200~~ 38,400 gal (~~163,440~~ 145,280 L) x ten percent of the total volume = ~~4,320~~ 3,840 gal (~~16,344~~ 14,528 L) of waste. Since ~~4,320~~ 3,840 gal (~~16,344~~ 14,528 L) is greater than 1,200 gal (4,540 L), the configuration of possible TDOPs in the storage area is used for the calculation of secondary containment requirements. ~~4,320~~ 3,840 gal (~~16,344~~ 14,528 L) of liquid x one percent liquids = ~~43.2~~ 38.4 gal (~~163.4~~ 145.3 L) of liquid for which secondary containment is needed.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				The maximum volume of TRU mixed waste that will be stored in the Derived Waste Storage Area of the WHB Unit is one SWB. 1 SWBs @ 496 gal (1,878 L) per SWB = 496 gal (1,878 L) of total waste volume ~~waste container capacity~~. Since the maximum storage volume of 496 gal (1,878 L) is equal to the volume of the largest single container, the volume of ~~the~~ a single SWB is used for the calculation of secondary containment requirements. 496 gal (1,878 L) of liquid x one percent liquids = 4.96 gal (18.8 L) of liquid for which secondary containment is needed. The maximum volume of TRU mixed waste on facility pallets that will be held in the TMF Holding Area of the WHB is 14 facility pallets @ 2 TDOPs per pallet = 28 TDOPs of waste. 28 TDOPs @ 1,200 gal (4,540 L) per TDOP = 33,600 gal (127,120 L) of total waste volume. 33,600 gal (127,120 L) x ten percent of the total volume = 3,360 gal (12,712 L) of waste. Since 3,360 gal (12,712 L) is greater than 1,200 gal (4,450 L), the volume of the largest single container, the configuration of TDOPs in the holding area is used for the calculation of secondary containment requirements. 3,360 gal (5,257 L) of liquid x one percent liquids = 33.6 gal (127.1 L) of liquid for which secondary containment is needed. The maximum volume of TRU mixed waste on facility pallets that will be held in the WHB Holding Area of the WHB is 8 facility pallets @ 2 TDOPs per pallet = 16 TDOPs of waste. 16 TDOPs @ 1,200 gal (4,540 L) per TDOP = 19,200 gal (72,600 L) of total waste volume. 19,200 gal (72,600 L) x ten percent of the total volume = 1,920 gal (7,260 L) of waste. Since 1,920 gal (7,260 L) is greater than 1,200 gal (4,450 L), the volume of the largest single container, the configuration of TDOPs in the holding area is used for the calculation of secondary containment requirements. 1,920 gal (7,260 L) of liquid x one percent liquids = 19.2 gal (72.6 L) of liquid for which secondary containment is needed. The maximum volume of TRU mixed waste on facility pallets that will be held in Room 108 Holding Area is 6 facility pallets @ 2 TDOPs per pallet = 12 TDOPs of waste. 12 TDOPs @ 1,200 gal

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				(4,540 L) per TDOP = 14,400 gal (54,480 L) of total waste volume. 14,400 gal (54,480 L) x ten percent of the total volume = 1,440 gal (5,448 L) of waste. Since 1,440 gal (5,448 L) is greater than 1,200 gal (4,500 L), the volume of the largest single container, the configuration of TDOPs in the holding area is used for the calculation of secondary containment requirements. 1,440 gal (5,448 L) of liquid x one percent liquids = 14.4 gal (54.5 L) of liquid for which secondary containment is needed. The maximum volume of TRU mixed waste on facility pallets that will be held in the TRUDOCK Holding Area is 2 facility pallets @ 2 TDOPs per pallet = 4 TDOPs of waste. 4 TDOPs @ 1,200 gal (4,540 L) per TDOP = 4,800 gal (18,160 L) of total waste volume. 4,800 gal (18,160 L) x ten percent of the total volume = 480 gal (1,816 L) of waste. Since 480 gal (1,816 L) is less than 1,200 gal (4,540 L), the volume of the largest single container, the larger volume is used for secondary containment calculations. 1,200 gal (4,540 L) of liquid x one percent liquids = 12.0 gal (45.4 L) of liquid for which secondary containment is needed.
Mi-1f(1)	M1-25	1-9	Revised the secondary containment calculations based upon the corrected capacity in the Hot Cell.	The maximum volume of TRU mixed waste that will be stored in the Hot Cell is 10 RH TRU drums @ 55 gal (210 L) per drum = 550 gal (2100 L) of waste in drums, 1 drum of derived waste @ 55 gal (21 L). Additionally, 6 RH TRU facility canisters @ ~~235~~ 165 gal (~~891~~ 627 L) per canister = ~~1,410~~ 990 gal (~~5,346~~ 3,762 L) of waste in canisters for a combined total ~~1,960~~ 1,595 gal (~~7,419~~ 6,061 L). And ~~1,960~~ 1,595 gal (~~7,419~~ 6,061 L) of waste x ten percent of total volume = ~~196~~ 160 gal (~~741.9~~ 608 L) of waste. Secondary containment for liquids will need to have a capacity ~~196~~ 160 gal (~~741.9~~ 608 L). Since ~~196~~ 160 gal (~~741.9~~ 608 L) is less than the volume of the single container of 235 gal (890 L) therefore, the larger volume is used for determining the secondary containment requirements. 235 gal (890 L) of waste x one percent liquids = 2.35 gal (8.9 L) of liquid needed for secondary containment.
M1-1f(2)	M1-25 and M1-26	17-34, 1-18	Revised calculations to show that sufficient surface area is available in both the storage and holding areas for secondary containment.	The following is a calculation of the surface area the quantities of liquid would cover. Using a conversion factor of 0.1337 ft^3/gal (0.001 m^3/L) and assuming the spill is 0.0033 ft (0.001 m) thick, the following calculation can be used:

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				gallons x cubic feet per gallon ÷ thickness in feet = area covered in square feet CH Bay Storage Area and Shielded Storage Area ~~43.2~~ 38.4 gal x 0.1337 ft^3/gal ÷ 0.0033 ft = ~~1,750~~ 1,555.8 ft^2 (~~162.7~~ 144.5 m^2) TMF Holding Area 33.6 gal x 0.1337 ft^3/gal ÷ 0.0033 ft = 1,361 ft^2 (126.4 m^2) WHB Holding Area 19.2 gal x 0.1337 ft^3/gal ÷ 0.0033 ft = 777.9 ft^2 (72.3 m^2) Room 108 Holding Area 14.4 gal x 0.1337 ft^3/gal ÷ 0.0033 ft = 583.4 ft^2 (54.2 m^2) TRUDOCK Holding Area 12.0 gal x 0.1337 ft^3/gal ÷ 0.0033 ft = 486.2 ft^2 (45.2 m^2) Hot Cell 2.35 gal x 0.1337 ft^3/gal ÷ 0.0033 ft = 95 ft^2 (8.8 m^2) Transfer Cell 2.35 gal x 0.1337 ft^3/gal ÷ 0.0033 ft = 95 ft^2 (8.8 m^2) The portion of the WHB Unit designated for storage of CH TRU mixed waste which includes the CH Bay Storage Area, and Shielded Storage Area has ~~33,175~~ 20,914.5 ft^2 (~~3,082~~ 1,945.7 m^2) of floor space~~, the CH Bay Storage Area in the northeast corner of~~

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				~~the WHB Unit (Figure M1-7) has 20,574 ft^2 (1,911 m^2) of floor space, and the Shielded Storage Area has 292.5 ft^2 (27.2 m^2) of floor space~~.~~-~~The CH Bay Storage Area and Shielded Storage Area requires ~~1,750~~ 1,555.8 ft^2 (~~162.7~~ 144.5 m^2) for containment, Thus, the floor area of the CH Bay Storage Area and the Shielded Storage Area of the WHB Unit provide sufficient secondary containment to contain a release of ten percent of one percent of the volume of all of the containers, or one percent of the capacity of the largest container, whichever is greater. The portion of the WHB designated for the holding of CH TRU mixed waste and identified as the TMF Holding Area has 9,081 ft^2 (844.5 m^2). The TMF Holding Area requires 1,361 ft^2 (126.4 m^2) for containment, therefore there is sufficient floor space to contain a release of ten percent of one percent of containers in this holding area. The portion of the WHB designated for the holding of CH TRU mixed waste and identified as the WHB Holding Area has 6,026 ft^2 (627.2 m^2). The WHB Holding Area requires 777.9 ft^2 (72.3 m^2) for containment, therefore there is sufficient floor space to contain a release of ten percent of one percent of containers in this holding area. The portion of the WHB designated for the holding of CH TRU mixed waste and identified as Room 108 Holding Area has 6,744 ft^2 (627.2 m^2). The Room 108 Holding Area requires 583.4 ft^2 (54.2 m^2) for containment, therefore, there is sufficient floor space to contain a release of ten percent of one percent of containers in this holding area. The portion of the WHB designated for the holding of CH TRU mixed waste and identified as the TRUDOCK Holding Area has 4,734 ft^2 (440 m^2). The TRUDOCK Holding Area requires 486.2 ft^2 (45.2 m^2) for containment, therefore there is sufficient floor space to contain a release of ten percent of one percent of containers in this holding area.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				The Hot Cell and Transfer Cell are the only portions of the RH Complex managing RH TRU mixed waste outside of casks or canisters. The Hot Cell has 1,841 ft^2 (171 m^2) of floor space and the Transfer Cell has 1,003 ft^2 (93 m^2) of floor space. The Hot Cell and Transfer Cell require only 95 ft^2 for containment; therefore there is sufficient floor space to contain a release of ten percent of one percent of containers in these storage areas. In addition, both the Hot Cell and the Transfer Cell each contain a 220 gal (833 L) sump that will collect any liquids that spill from containers. Derived Waste Storage Area The derived waste containers in the Derived Waste Storage Area will be stored on standard drum pallets, which provide approximately 50 gal (190 L) of secondary containment capacity. Thus the secondary containment capacity of the standard drum pallet is sufficient to contain a release of ten percent of one percent of the largest container (4.96 gal or 18.8 L). Parking Area Unit Containers of TRU mixed waste to be stored in the Parking Area Unit and Parking Area Holding Area will be in Contact-Handled or Remote-Handled Packages. There will be no additional requirements for engineered secondary containment systems.
M1-1i	M1-27	3-6	Added the Parking Area Holding Area and indoor container holding areas to the discussion of run on.	In the Parking Area Unit, and Parking Area Holding Area the containers of TRU mixed waste are always in Contact-Handled or Remote-Handled Packages which protect them from precipitation and run on. Therefore, the WIPP container storage units and holding areas will comply with the requirements of 20.4.1.500 NMAC (incorporating 40 CFR §264.175(b)(4)).
Figure M1-1			Reinserted figure with changes.	Revised figure is attached.
Figure M1-1a			Deleted NDE unit in TMF.	Revised figure is attached.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
Figure M1-2			Reinserted figure with changes.	Revised figure is attached.
Figure M1-7			Deleted facility pallet temporary storage area figure. The information on this figure is the shown in Figure M1-1.	Deleted figure is attached.
Figure M1-9			Deleted WHB unloading dock figure. The information on this figure is the shown in Figure M1-1 and M1-1a.	Deleted figure is attached.
Figure M1-13			Reinserted Permittees Figure M1-13 and change "verification and examination" to "confirmation."	Revised figure is attached.
Figure M1-14			Deleted ground floor area figure. The information on this figure is the shown in Figure M1-1 and M1-1a.	Deleted figure is attached.
Figure M1-18			The term "Lift Trunnions (4 places)" was not captured in the NMED version of this figure.	Corrected figure is attached.
Figure M1-28			Replaced figure. What is depicted is the process flow for the RH-72B and not the CNS 10-160B. Figures M1-28 and M1-29 in the draft Permit are duplicates.	Revised figure is attached.
M2-2b	M2-12	2-20	Revised to allow placement of waste in holding areas until confirmation at WIPP is complete.	CH TRU mixed waste containers will arrive by tractor-trailer at the WIPP facility in sealed shipping containers (e.g., TRUPACT-IIs or HalfPACTs), at which time they will undergo security and radiological checks and shipping documentation reviews. The trailers carrying the shipping containers will be stored temporarily at the Parking Area ~~Container Storage Unit (Parking Area Unit)~~ Holding Area until the waste confirmation requirements of Permit Attachment B7 are met. A forklift will remove the Contact Handled Packages from the transport trailers and will transport them into the Waste Handling Building ~~Container Storage Unit~~ TRUDOCK Holding Area for unloading of the waste containers. Each TRUPACT-II may hold up to two 7-packs, two 4-packs, two 3-packs, two SWBs, or one TDOP. Each HalfPACT may hold up to seven 55-gal (208 L) drums, one SWB, or four 85-gal (321 L) drums. An overhead bridge crane will be used to remove the waste containers from the Contact Handled Packaging and place them on a facility or containment pallet. Each facility pallet has two recessed pockets to accommodate two sets of 7-packs, two sets of 3-packs, two sets of 4-packs, two SWBs stacked two-high, or two TDOPs.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				After approval of the waste confirmation each ~~Each~~ stack of waste containers will be secured prior to transport underground (see Figure M2-3). A forklift or the facility transfer vehicle will transport the loaded facility pallet to the conveyance loading room adjacent to the Waste Shaft. The facility transfer vehicle will be driven onto the waste hoist deck, where the loaded facility pallet will be transferred to the waste hoist, and the facility transfer vehicle will be backed off. Containers of CH TRU mixed waste (55-gal (208 L) drums, SWBs, 85-gal (321 L) drums, 100-gal (379 L) drums, and TDOPs) can be handled individually, if needed, using the forklift and lifting attachments (i.e., drum handlers, parrot beaks).
Figure M2-12			Removed strikeout in box which was previously approved as a Class 1 modification by NMED.	Removed the following strikeout language: Backfill ~~Super Sacks~~ Positioned ~~onto Waste Containers~~ in Panel
N-3e(2)	N-8	23	The first sentence of Section N-3e(2) requires that laboratory data be validated within 3 working days. This time period, which is too short, was inadvertently proposed by the Permittees in a previous submission. In the Permit, there is not a requirement specifying a timeframe for data validation. The actual time to validate data packages varies based on prioritized scheduling within the VOC monitoring program. The analytical laboratory is required by their contract to submit electronic data deliverables (EDDs) to VOC monitoring personnel. These EDDs are submitted just prior to the delivery of hardcopy data packages. They include sample concentration summaries, QA parameter summaries, and analysis time information. The EDDs are reviewed by VOC monitoring personnel upon receipt to determine if the results may require action or notification of any kind. If the EDD indicates that any concentration is near or above the level that would require notification, that data package is given priority and is validated accordingly. In addition to the EDDs, the analytical laboratory is required to report any	When the Permittees receive laboratory analytical data from an air sampling event, the data will be validated as specified in Section N-5a, within ~~three (3)~~ ten (10) working days of receiving the laboratory analytical data.

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			elevated concentration to VOC monitoring personnel upon first indication of such a condition identified during the analytical process. This requirement further enables VOC monitoring personnel to be prepared to act upon any elevated results. The Permittees propose that the first paragraph of Section N-3e(2) of Attachment N of the draft Permit be revised to provide for a ten (10) day normal validation time. See also comment to Section N-5d below.	
N-5	N-14	27-28	In Permit Attachment N, Section N-5, the reference to *Guidance for the Data Quality Objectives Process, QA/G-4 (EPA, 2000)*, should be deleted. The purpose of QA/G-4 is *"…to plan data collection efforts and develop an appropriate data collection design to support decision making."* The WIPP facility underground disposal unit has been permitted under the regulations found in 20.4.1.500 NMAC incorporating 40 CFR Part 264, Subpart X, Miscellaneous Units. As a Miscellaneous Unit, the Permittees and NMED negotiated environmental performance standards to protect human health and the environment. The negotiation included the data collection design and the selection of acceptance criteria for repository and room based VOC monitoring. The resulting data collection process and acceptance criteria are specified in Permit Attachment N. Given this alternative process for establishing environmental performance standards, the reference to QA/G-4 is unnecessary. The Permittees have deleted this reference in their markup of the daft permit.	The QA activities for the VOC monitoring programs will be conducted in accordance with the documents: *EPA Guidance for Quality Assurance Project Plans QA/G-5* (EPA, 2002), ~~*Guidance for the Data Quality Objectives Process, QA/G-4* (EPA, 2000),~~ and the *EPA Requirements for Preparing Quality Assurance Project Plans, QA/R-5* (EPA, 2001).
N-5d	N-17	30	The Permittees propose Attachment N of the draft Permit be revised to include a provision for accelerated data validation in cases where initial electronic data deliverables from the laboratory	Data validation procedures will include at a minimum, a check of all field data forms and sampling logbooks will be checked for completeness and correctness. Sample custody and analysis records will be reviewed routinely by the QA officer and the

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
			indicates that VOC concentrations are at or near regulatory limits.	laboratory supervisor. Electronic Data Deliverables (EDDs) are provided by the laboratory prior to receipt of hard copy data packages. EDDs will be evaluated within three (3) days of receipt to determine if VOC concentrations are at or near regulatory limits. If the EDD indicates that VOC concentrations are at or near regulatory limits, the hard copy data package will be validated within three (3) working days as opposed to the ten (10) working day time frame provided by Section N-3e(2). Data will be reported as specified in Section N-3(e) and Permit Module IV.
Figure N-1			Revised figure to show Panel 3 is the active panel.	Revised figure is attached.
O	O-5	28-43	Paragraph was revised because proposed storage volumes were not incorporated into the draft Permit and deleted references to container types and rail transportation. Added the ability to store Remote-Handled Packages.	The process design capacity for the miscellaneous unit (composed of ten underground HWMUs in the geologic repository) shown in Section XII B, is for the maximum amount of waste that may be received from off-site generators plus the maximum expected amount of derived wastes that may be generated at the WIPP facility. In addition, two HWMUs have been designated as container storage units (S01) in Section XII. One is inside the Waste Handling Building (WHB) and consists of the contact-handled (CH) bay, conveyance loading room, waste hoist entry room, RH bay, cask unloading room, hot cell, transfer cell, and facility cask loading room. This HWMU will be used for waste receipt, handling, and storage (including storage of derived waste) prior to emplacement in the underground geologic repository. No treatment or disposal will occur in this S01 HWMU. The capacity of this S01 unit for storage is ~~87.7~~ 161 m^3~~, based on 40 standard waste boxes or seven packs of drums on pallets and in the TRUDOCKs, one standard waste box of derived waste, seven RH canisters in the transfer cell, and five RH canisters in the hot cell~~. The second S01 HWMU is the parking area outside the WHB where the Contact- or Remote-Handled Package trailers and the road cask trailers will be parked awaiting waste handling operations. The capacity of this unit is ~~12~~ 50 ~~TRUPACT IIs and three road casks or four rail casks~~ Contact- and 14 Remote-Handled Packages with a combined volume of ~~47.1~~ 241.4 m^3. ~~The railroad side tracks are included in this area to accommodate rail~~

Att/Module and Section	Page	Line	Comment	Proposed Change to Draft Permit
				~~shipments of RH TRU mixed waste.~~ The HWMUs are shown in Appendix O3 as Figures O3-2, O3-3, and O3-4.
O	O-6	4 - 5	The entry in the last paragraph of Section XII of Attachment O has been changed to reflect the repository limit of 7,080 m^3 of RH TRU mixed waste to be consistent with the second paragraph of Section XII.	During the ten year period of the permit, up to 131,250 m^3 of CH TRU mixed waste could be emplaced in Panels 1 to 7 and up to ~~3,250~~ 7,080 m^3 of RH TRU mixed waste could be emplaced in Panels 3 to 7. Panels 8, 9 and 10 will be constructed under the initial term of this permit. These latter areas will not receive waste for disposal under this permit.
Figure O3-3			Revised figure to indicate proposed WHB storage areas, holding areas, and deleted square footage.	Revised figure is attached.
Figure O3-4			Revised figure to indicate proposed Parking Area Unit storage and holding areas and deleted square footage.	Revised figure is attached.

Attachment A

Revised Table IV.A.1

Table IV.A.1 - Underground HWDUs			
Description[1]	~~**Area**~~ **TRU Mixed Waste Type**	**Maximum ~~Design~~ Capacity of TRU Mixed Waste**[2]	**Container Equivalent**[2]
Panel 1	~~124,150 ft^2 (11,533 m^2)~~ CH TRU Mixed	~~662,150~~ 662,150 ft^3 (~~18,750~~ 18,750 m^3)	89,300 ~~89,300~~ 55-Gallon Drums
Panel 2	~~124,150 ft^2 (11,533 m^2)~~ CH TRU Mixed	662,150 ~~662,150~~ ft^3 (18,750 ~~18,750~~ m^3)	89,300 ~~89,300~~ 55-Gallon Drums
Panel 3	~~124,150 ft^2 (11,533 m^2)~~ CH TRU Mixed	662,150 ~~662,150~~ ft^3 (18,750 ~~18,750~~ m^3)	89,300 ~~89,300~~ 55-Gallon Drums
	RH TRU Mixed	70,100 ft^3 (1,985 m^3)	730 direct loaded canisters
Panel 4	~~124,150 ft^2 (11,533 m^2)~~ CH TRU Mixed	662,150 ~~662,150~~ ft^3 (18,750 ~~18,750~~ m^3)	89,300 ~~89,300~~ 55-Gallon Drums
	RH TRU Mixed	70,100 ft^3 (1,985 m^3)	730 direct loaded canisters
Panel 5	~~124,150 ft^2 (11,533 m^2)~~ CH TRU Mixed	662,150 ~~662,150~~ ft^3 (18,750 ~~18,750~~ m^3)	89,300 ~~89,300~~ 55-Gallon Drums
	RH TRU Mixed	70,100 ft^3 (1,985 m^3)	730 direct loaded canisters
Panel 6	~~124,150 ft^2 (11,533 m^2)~~ CH TRU Mixed	662,150 ~~662,150~~ ft^3 (18,750 ~~18,750~~ m^3)	89,300 ~~89,300~~ 55-Gallon Drums
	RH TRU Mixed	70,100 ft^3 (1,985 m^3)	730 direct loaded canisters
Panel 7	~~124,150 ft^2 (11,533 m^2)~~ CH TRU Mixed	662,150 ~~662,150~~ ft^3 (18,750 ~~18,750~~ m^3)	89,300 ~~89,300~~ 55-Gallon Drums
	RH TRU Mixed	70,100 ft^3 (1,985 m^3)	730 direct loaded canisters
Total	CH TRU Mixed	**~~4,635,050~~ 4,635,050 ft^3 (~~131,250~~ 131,250 m^3)**	**~~625,000~~ 625,100 55-Gallon Drums**
	RH TRU Mixed	**250,000 ft^3 (7,080 m^3)**[3]	**3,650 direct loaded canisters**

[1] The area of each panel is approximately 124,150 ft^2 (11,533 m^2).

~~[12] "Maximum Capacity" and "Container Equivalent" values have been reduced to actual capacity and container equivalent for closed Underground HWDUs.~~

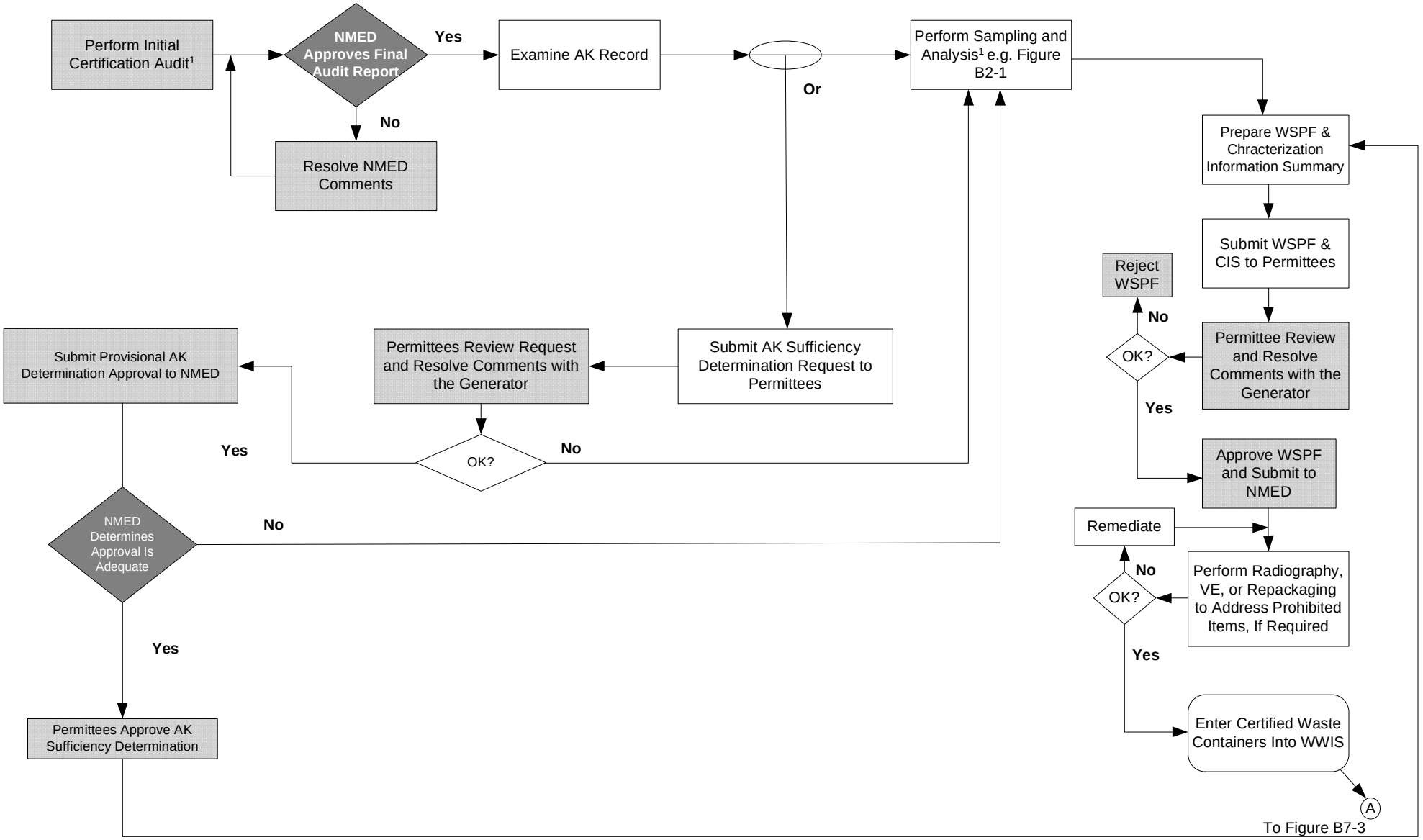
~~Total values reflect remaining permitted capacity and container equivalent.~~ The actual emplaced volume in Panel 1 is 371,000 ft^3 (10,500 m^3) and 50,460 55-gallon drum equivalents.

[3] The total volume of RH TRU mixed waste cannot exceed the repository limit.

Note: The actual capacity of each panel of TRU mixed waste and non-mixed TRU waste combined may exceed 20,735 m^3 so long as the maximum repository capacity of 175,600 m^3 is not exceeded.

Attachment B

Revised Permit Figures



[1]The generator/storage site will have to perform waste characterization activities for at least a few containers in at least one waste stream prior to the audit so objective evidence of implementation can be generated for review during the audit.

Figure B-2
WASTE CHARACTERIZATION PROCESS

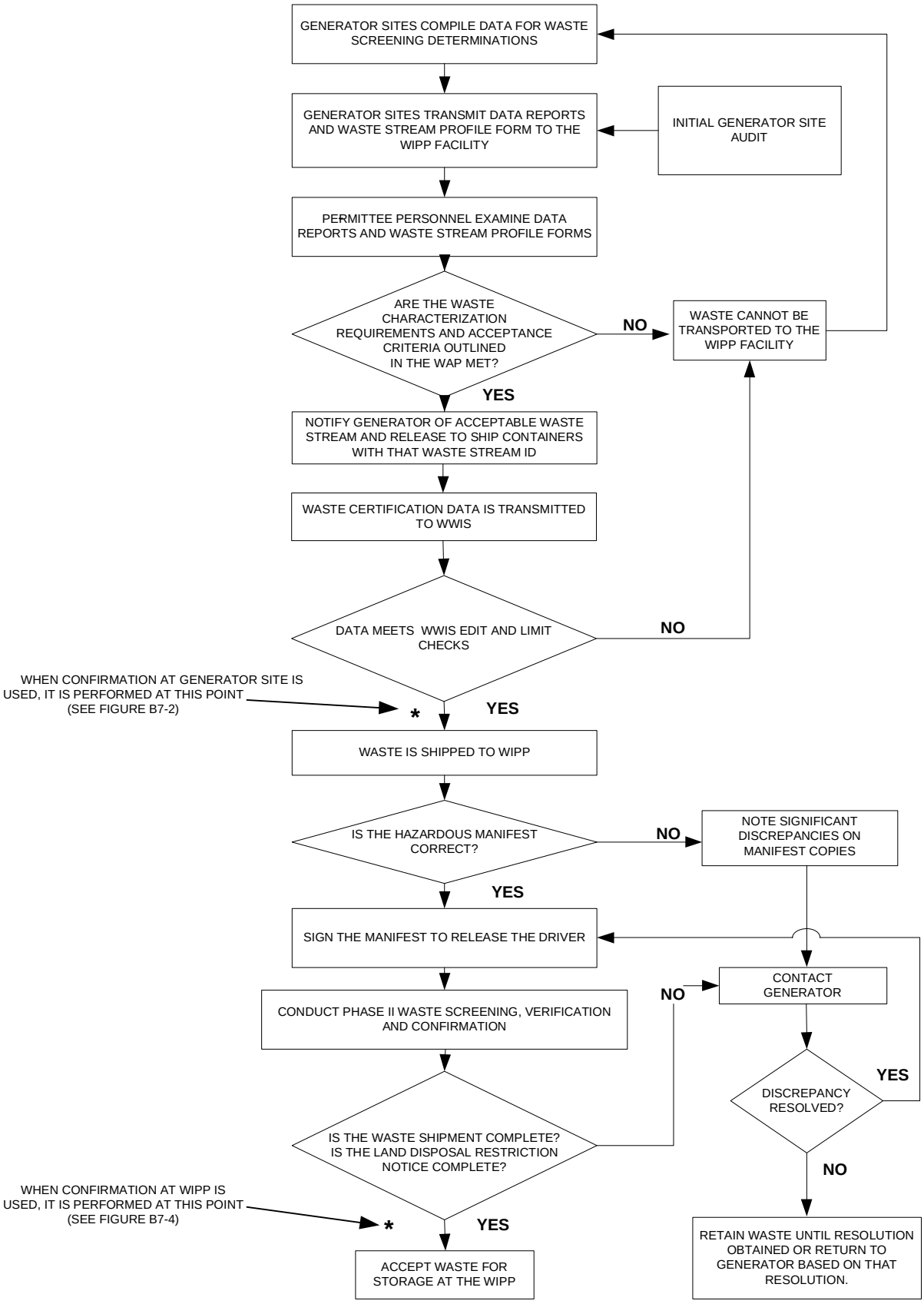


Figure B-~~5~~3
TRU Mixed Waste Screening Flow Diagram

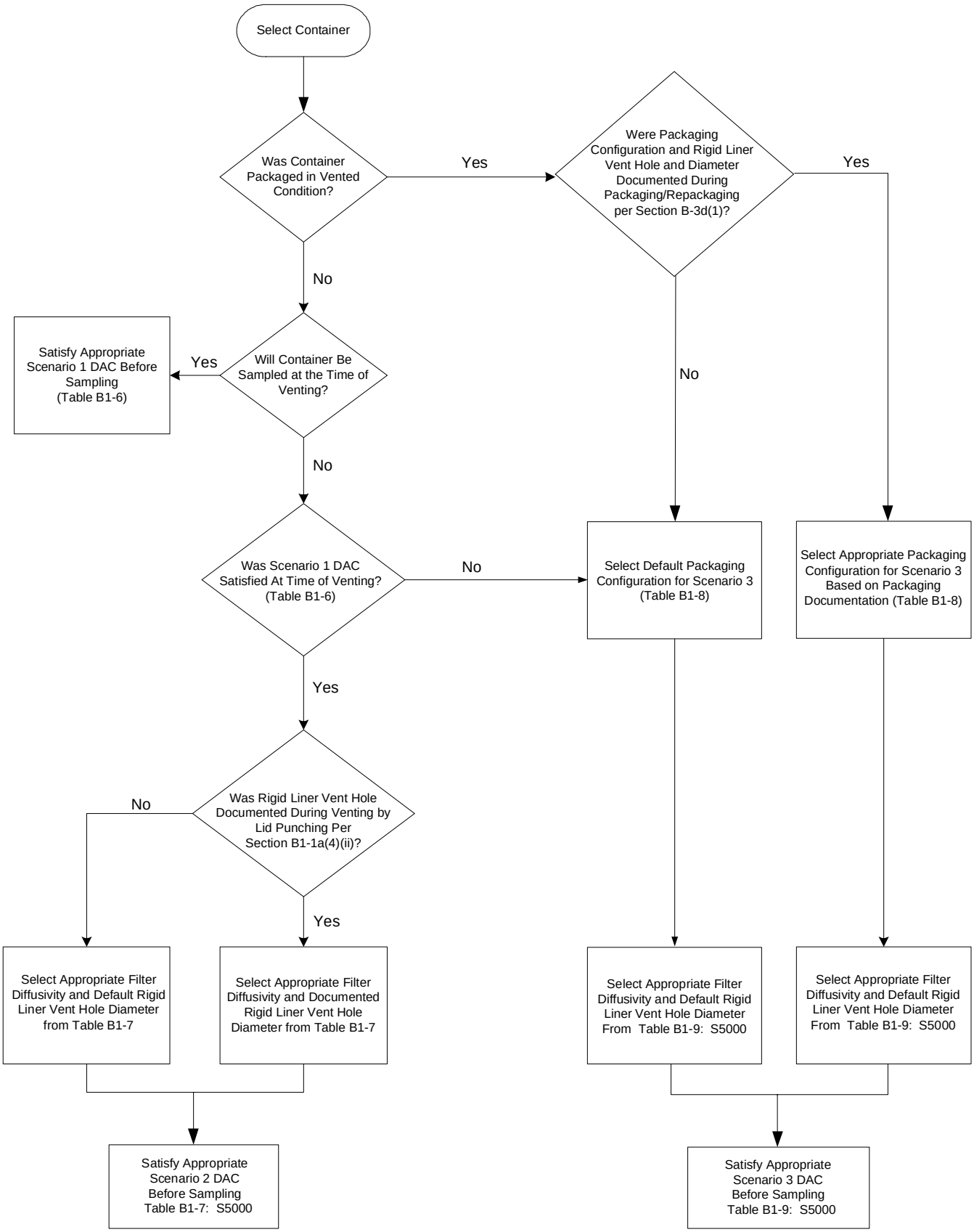


Figure B1-1
Headspace Gas Drum Age Criteria Sampling Scenario Selection Process

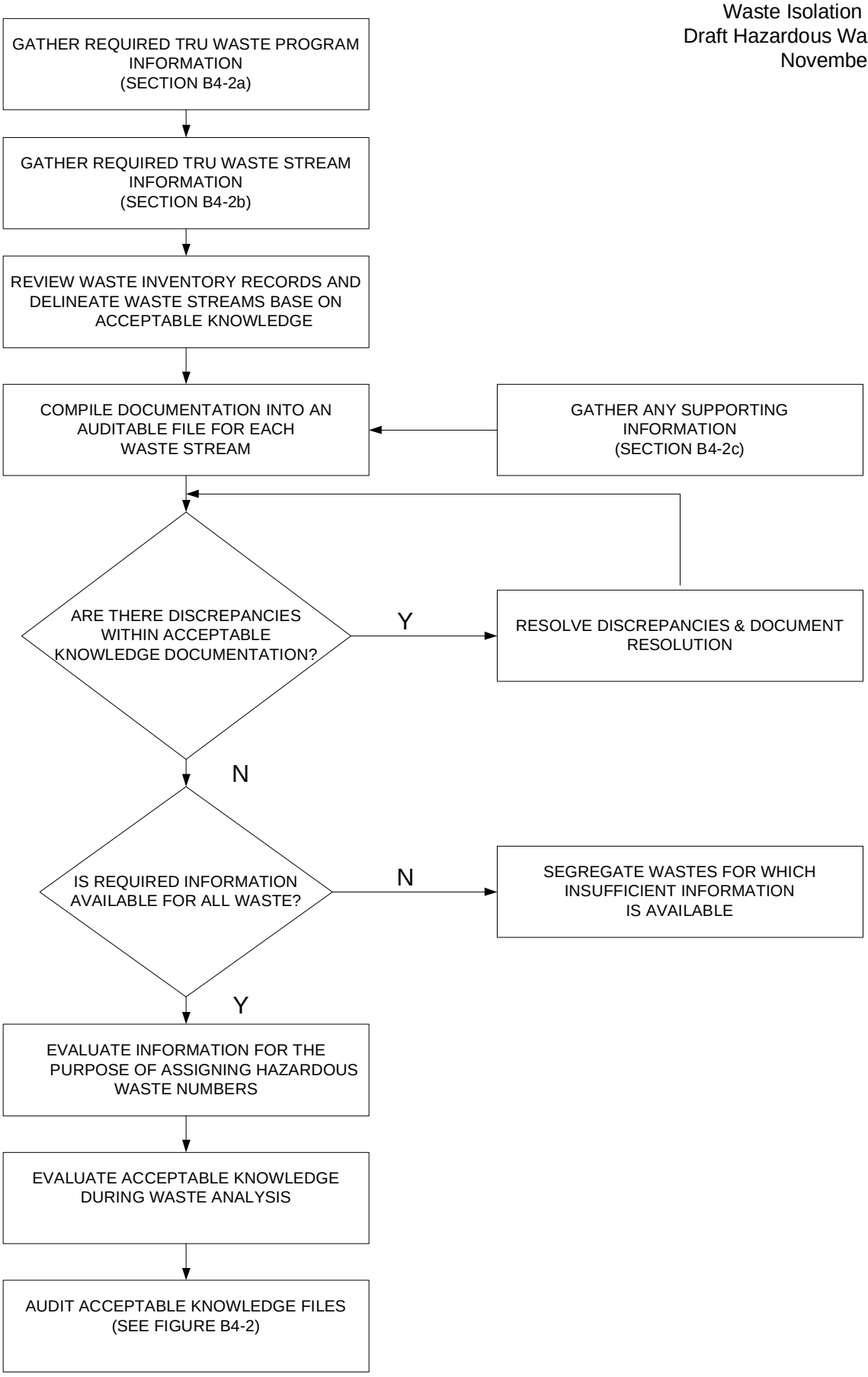


Figure B4-1
Compilation of Acceptable Knowledge Documentation

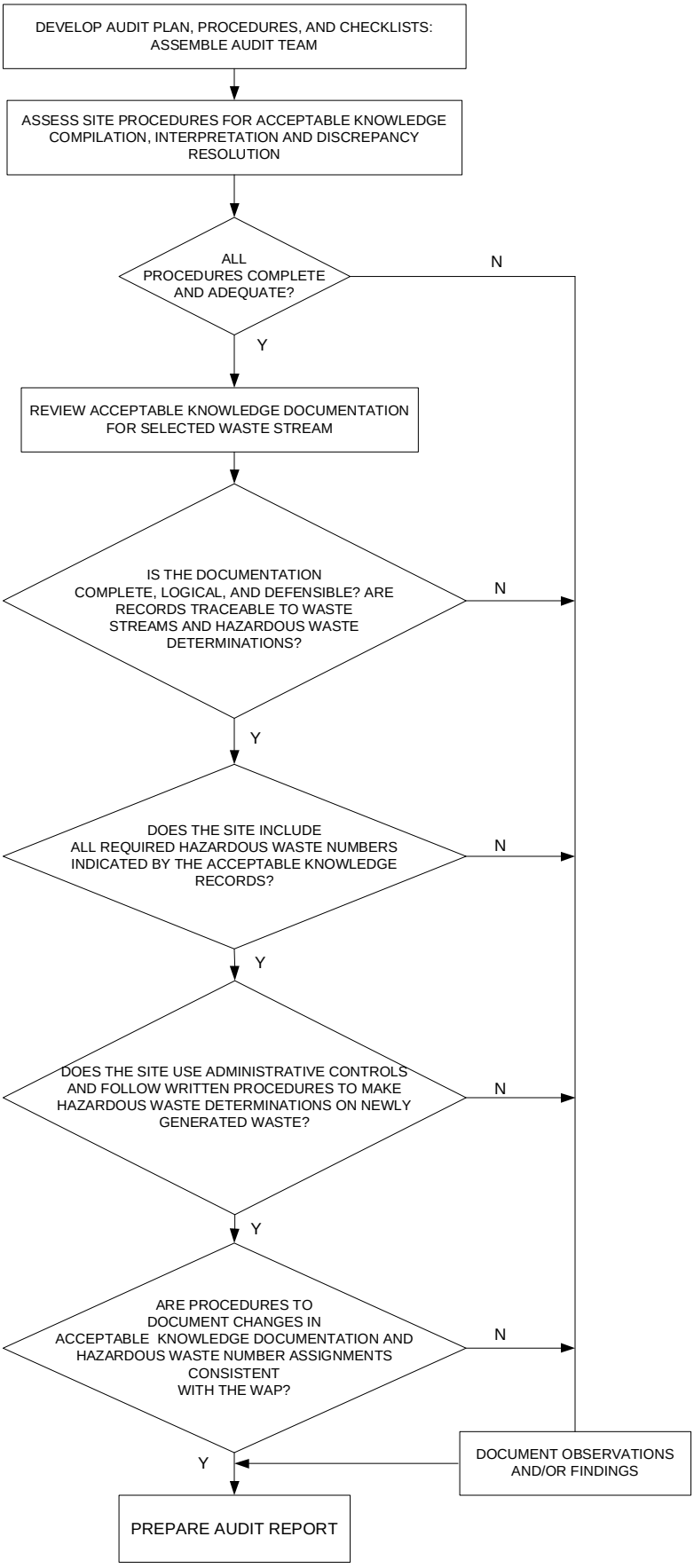


Figure B4-2
Acceptable Knowledge Auditing

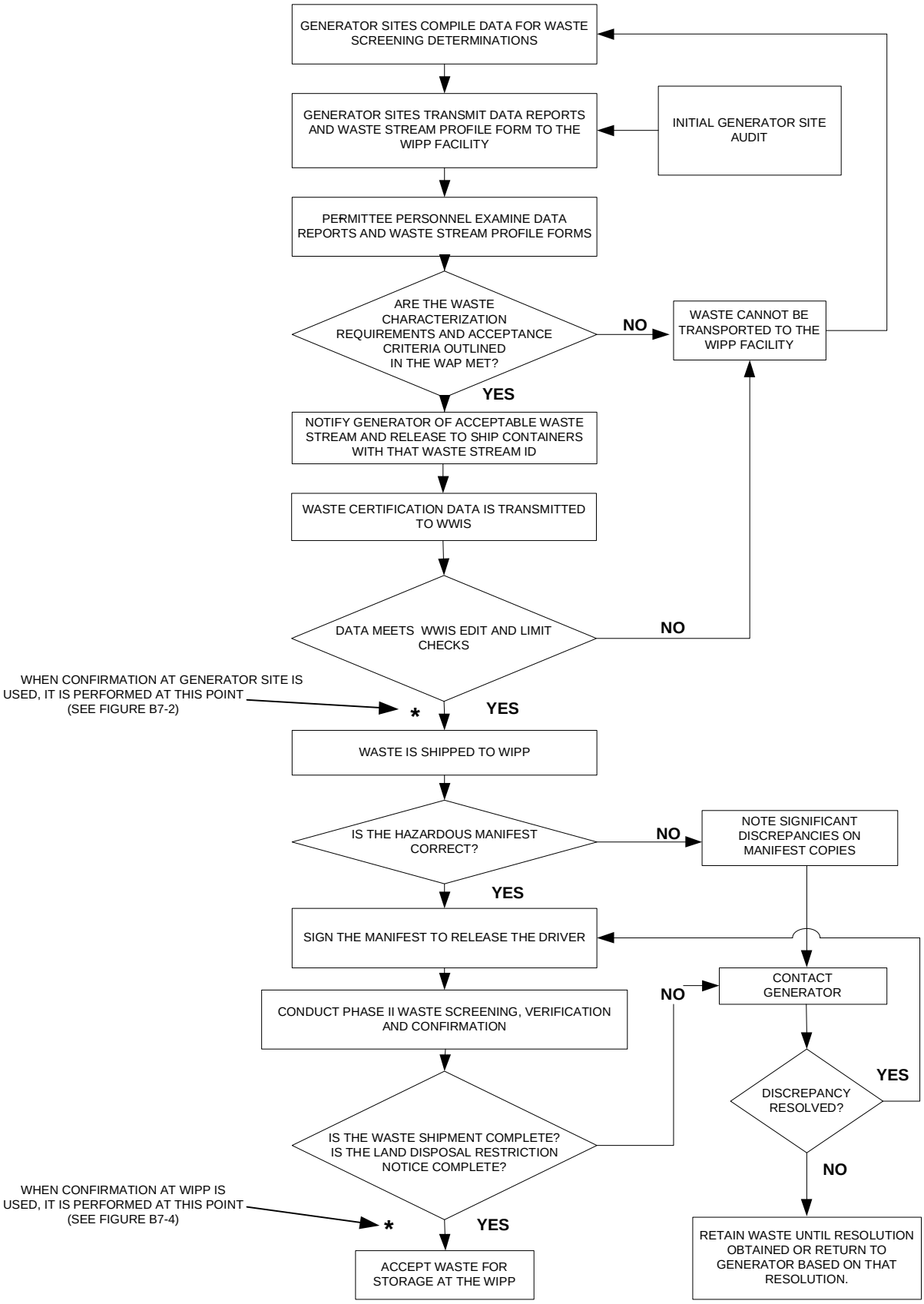


Figure B7-1
TRU Mixed Waste Screening Flow Diagram

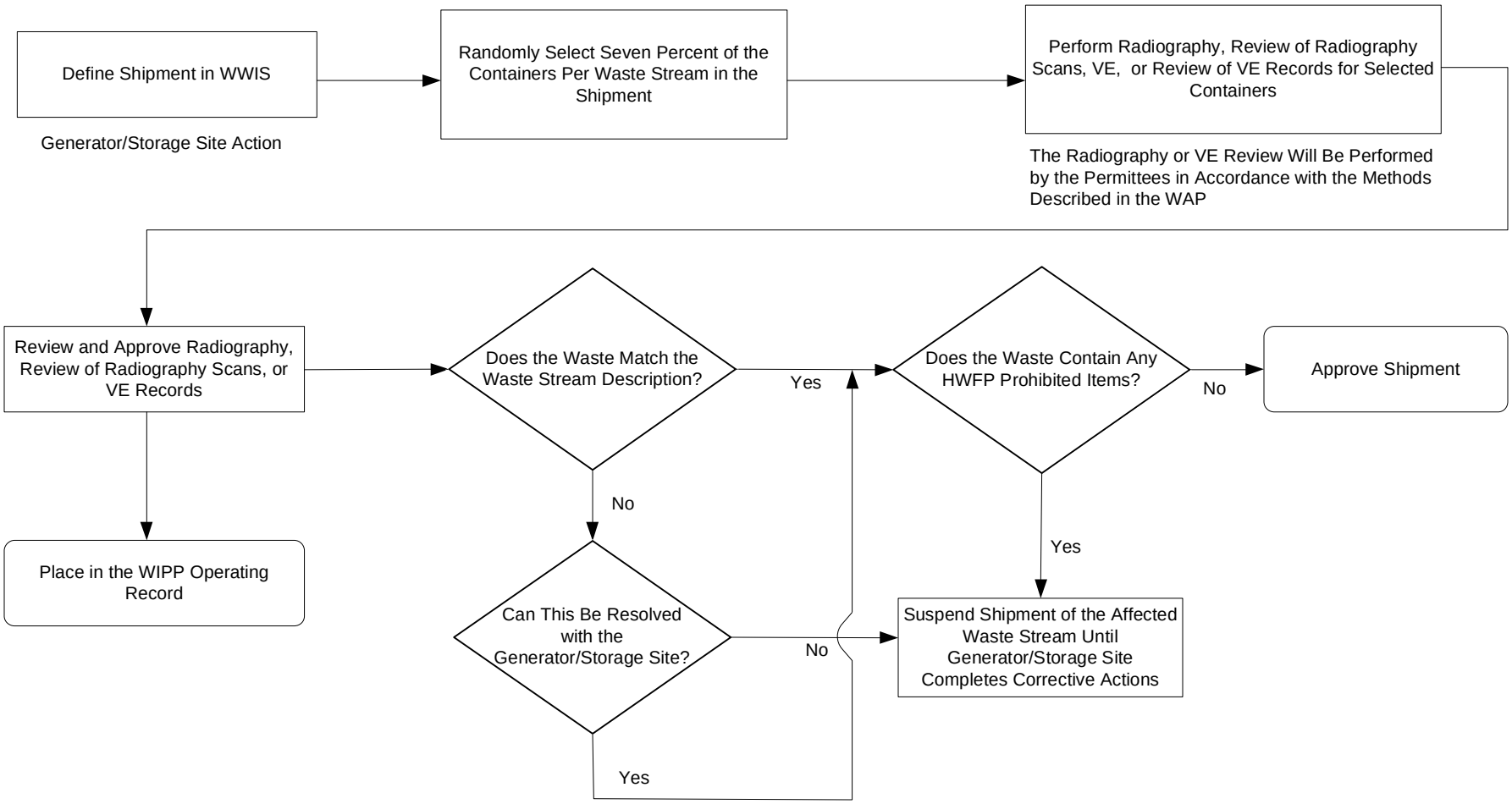


Figure B7-2
Waste Confirmation at an Offsite Facility

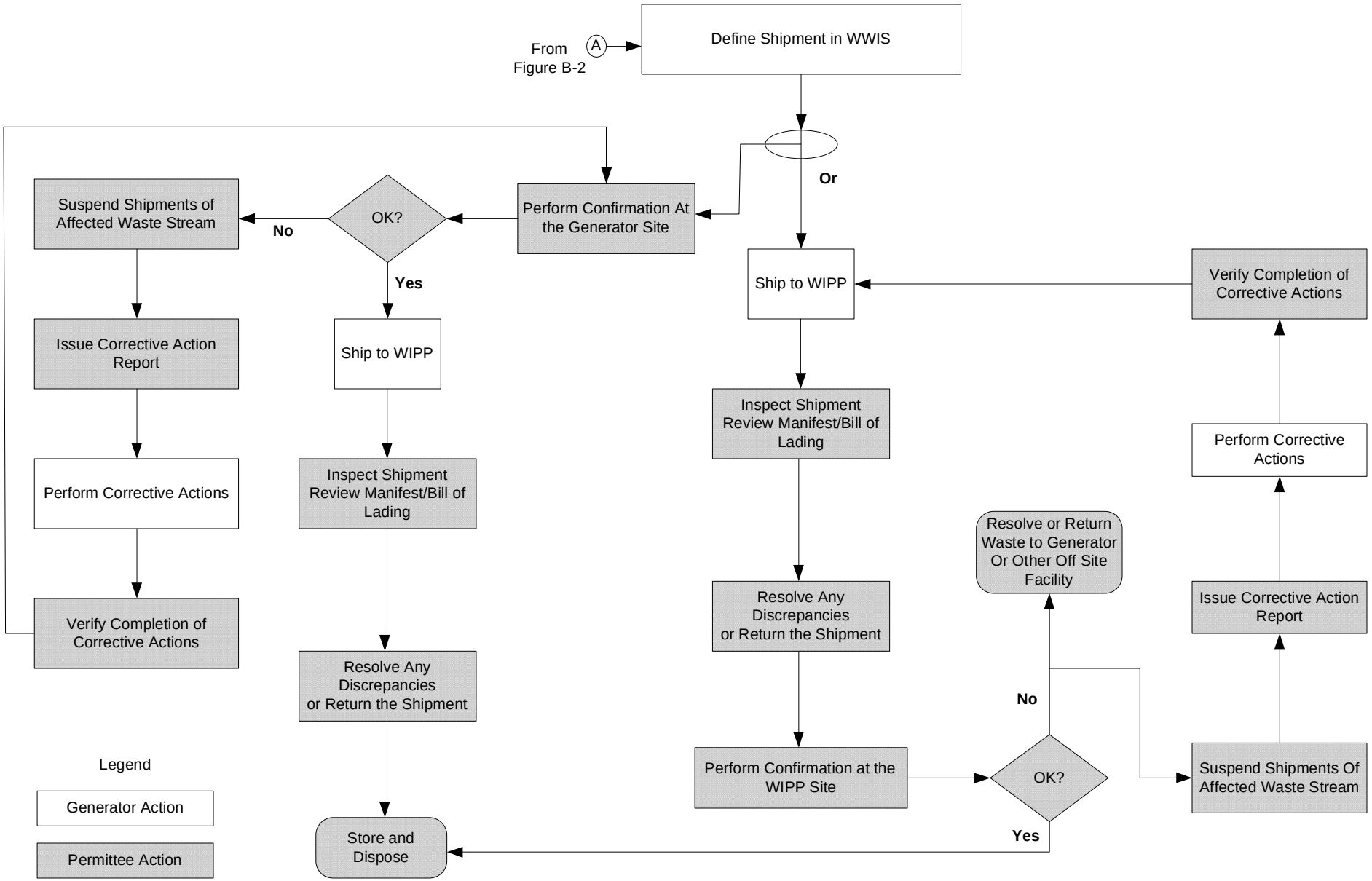


Figure B7-3
WASTE CONFIRMATION PROCESS

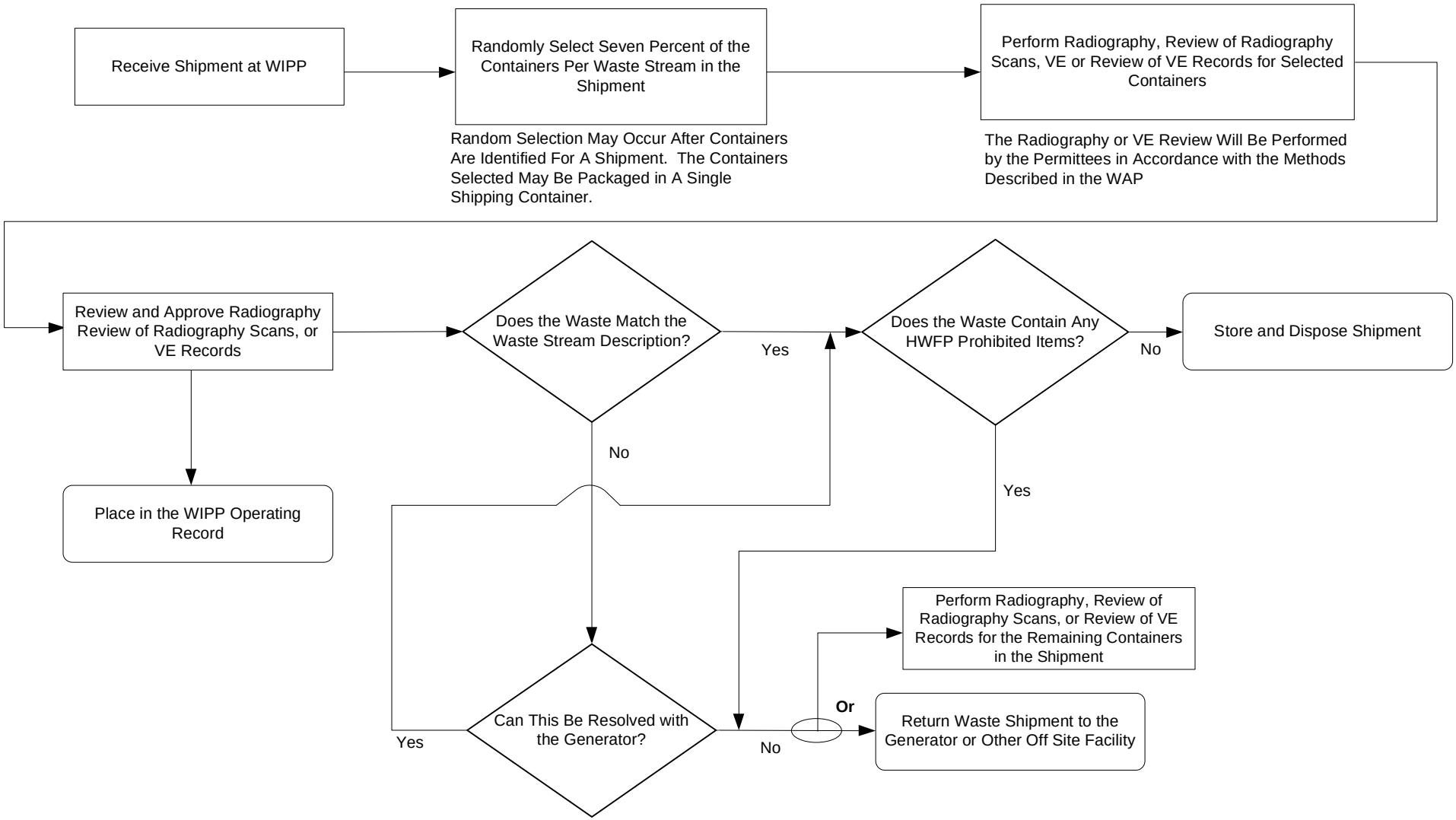


Figure B7-4
CONFIRMATION PROCESS AT WIPP

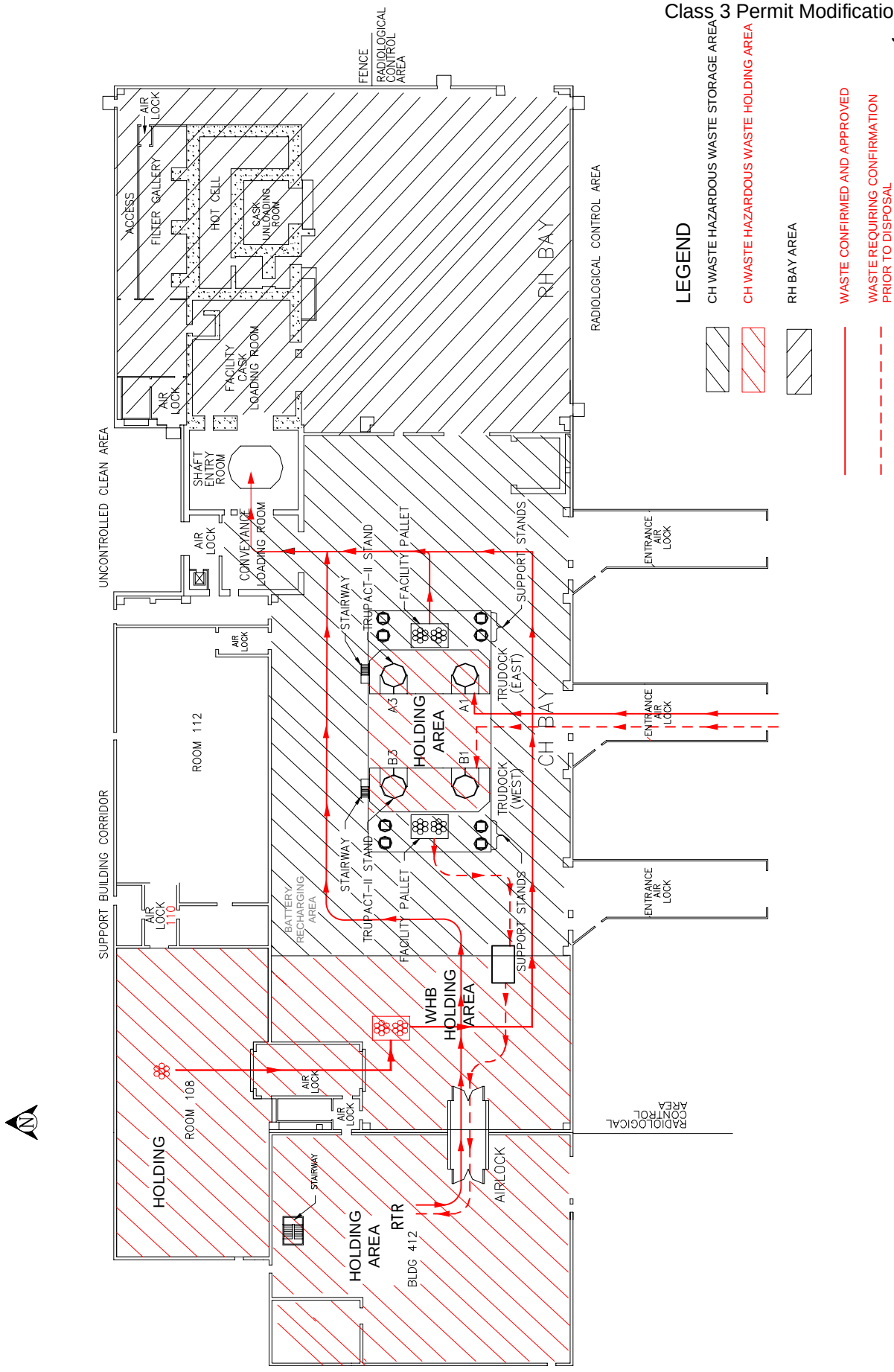


Figure G-3
Typical Waste Transport Routes in Waste Handling Building - Container Storage Unit

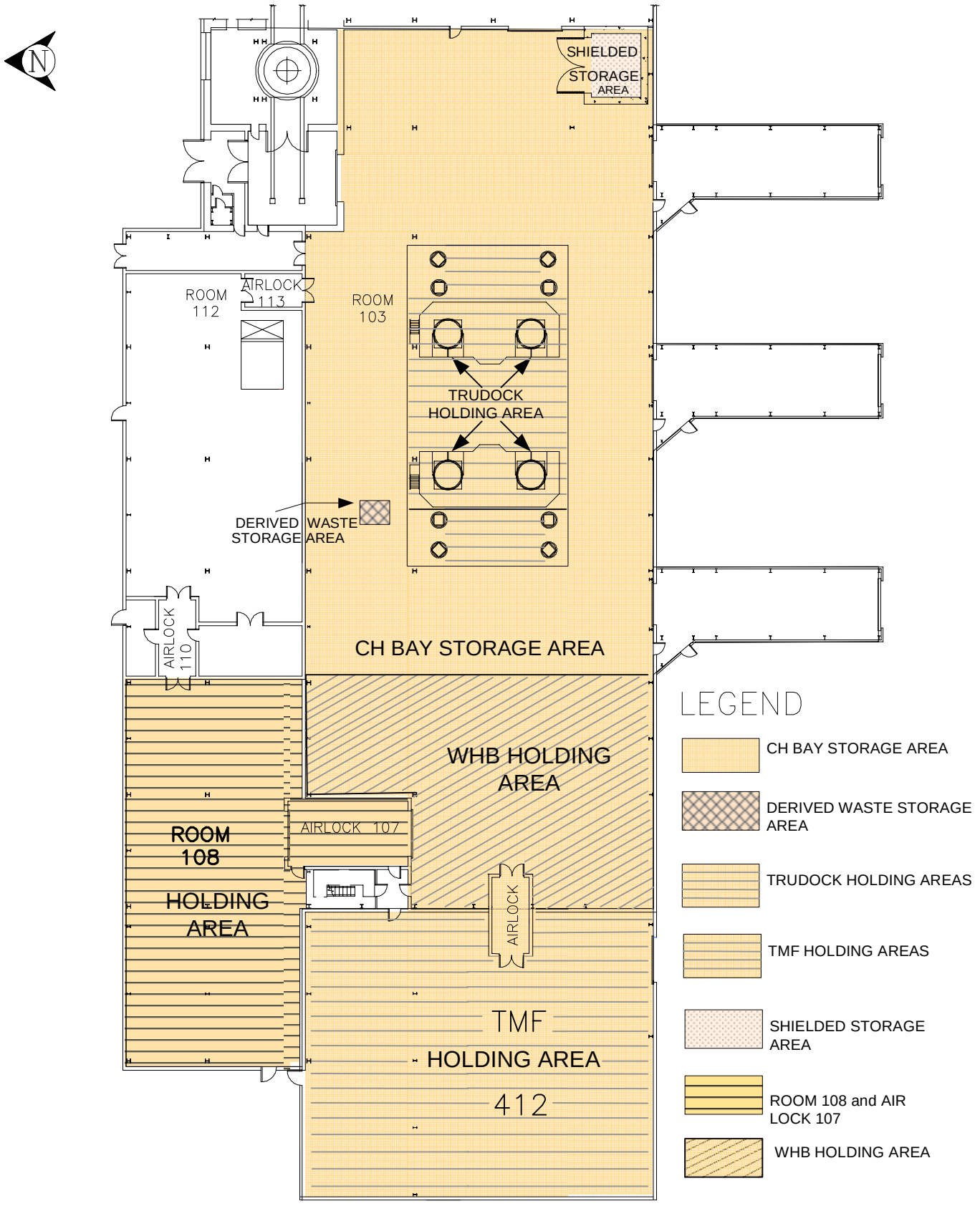


Figure M1-1
Waste Handling Building - Container Storage and Holding Areas

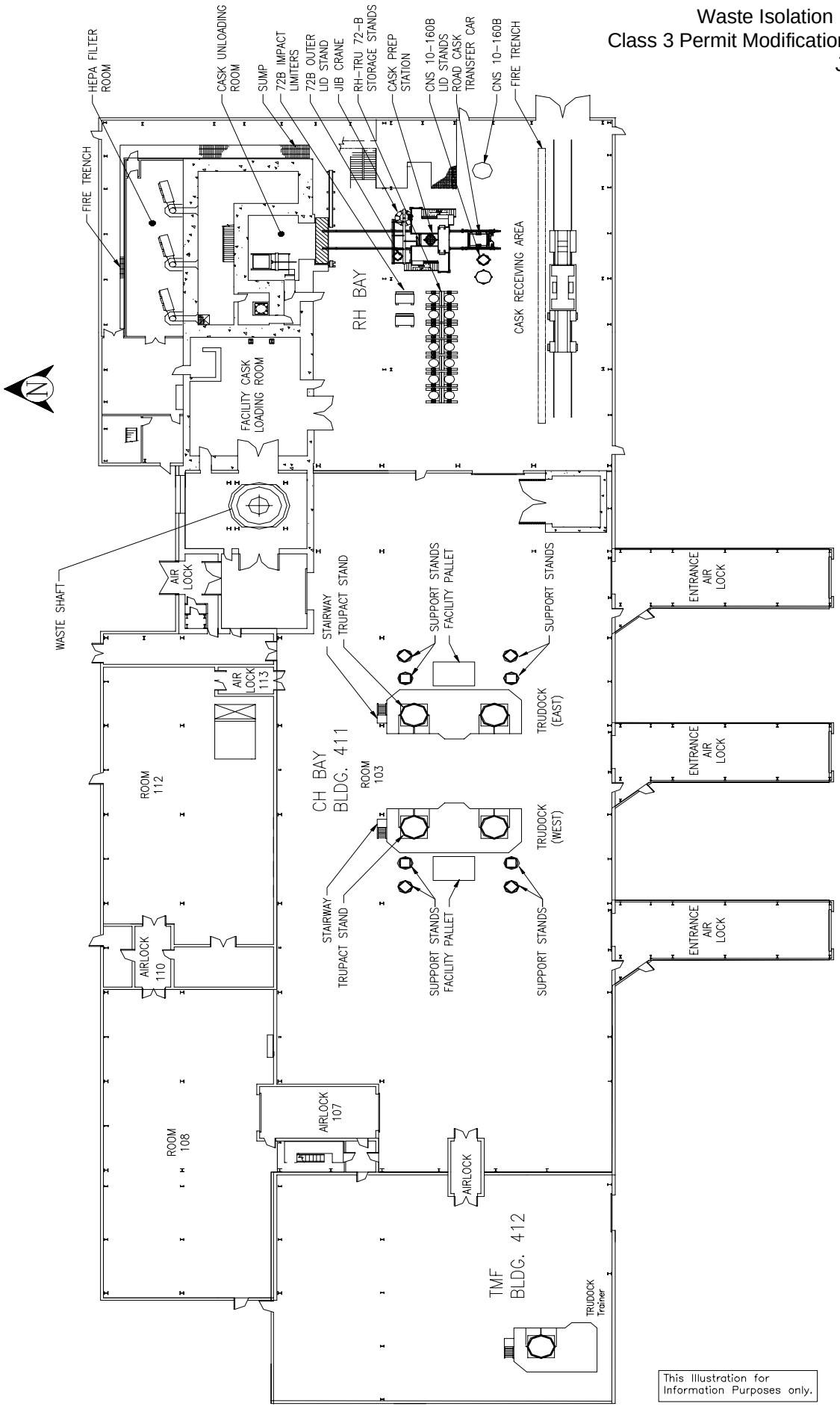


Figure M1-1a
Waste Handling Building Plan (Ground Floor)

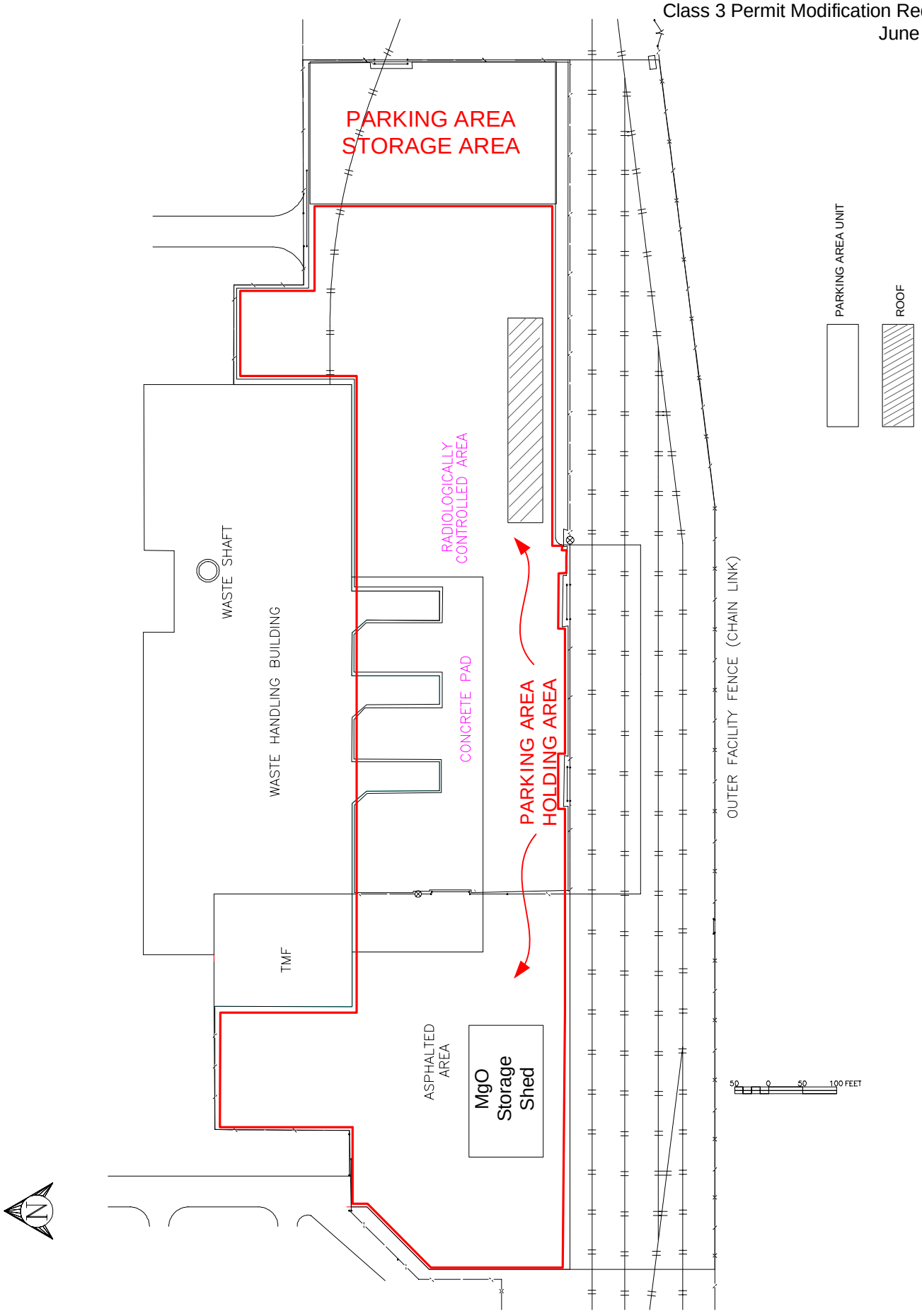


Figure M1-2
Parking Area - Container Storage Areas

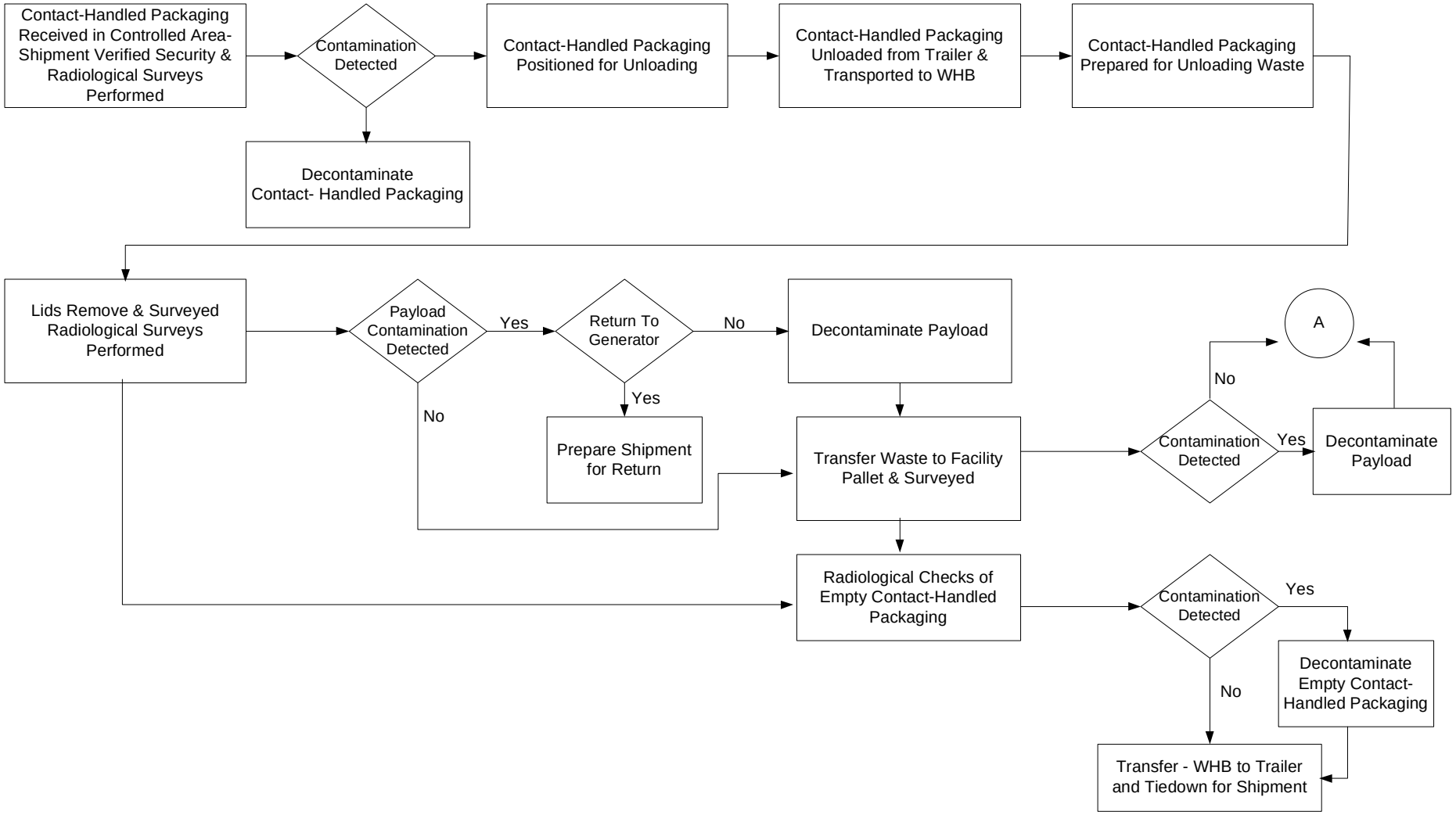


Figure M1-13

WIPP Facility Surface and Underground CH Transuranic Mixed Waste Process Flow

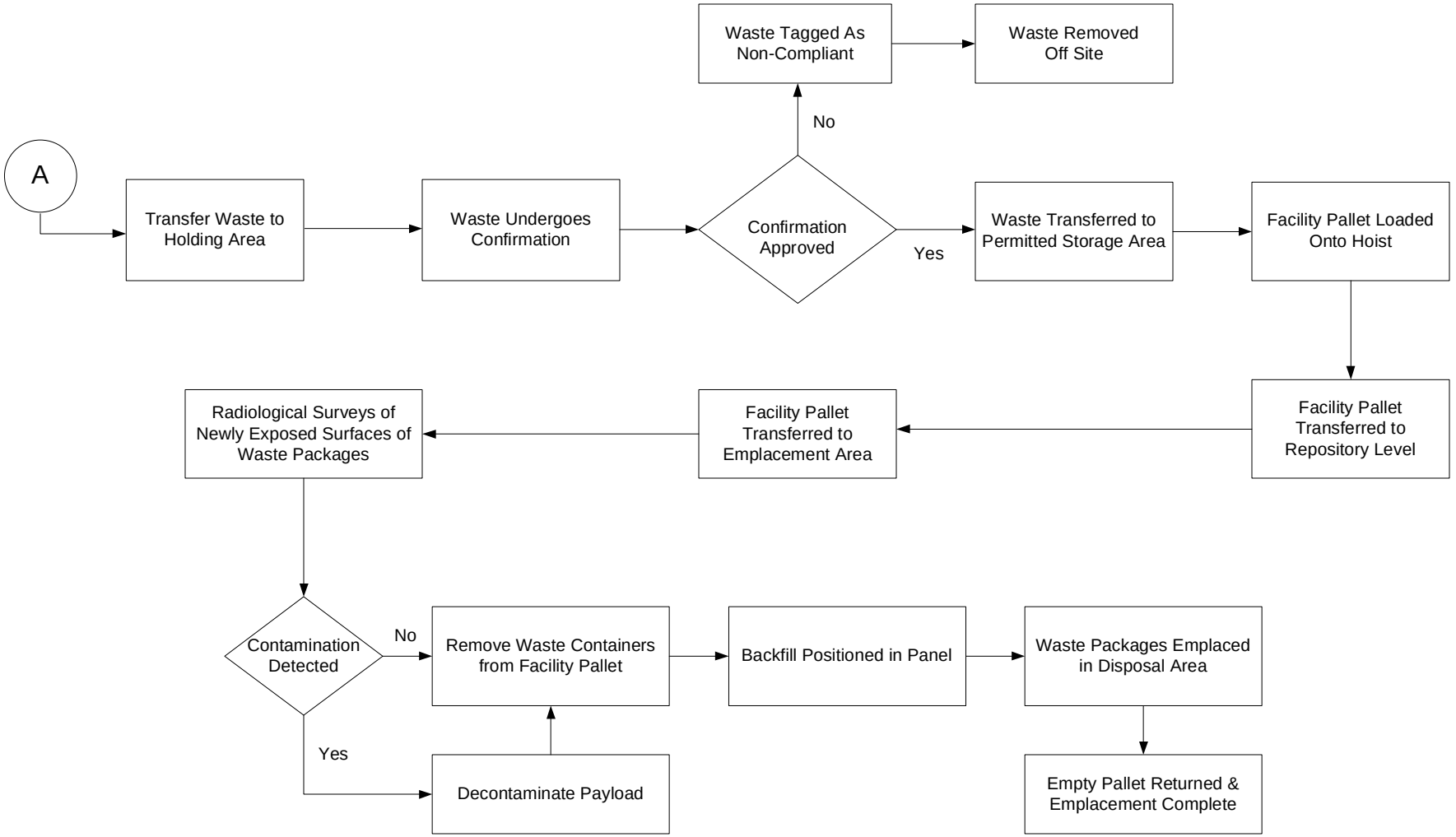


Figure M1-13

WIPP Facility Surface and Underground CH Transuranic Mixed Waste Process Flow (continued)

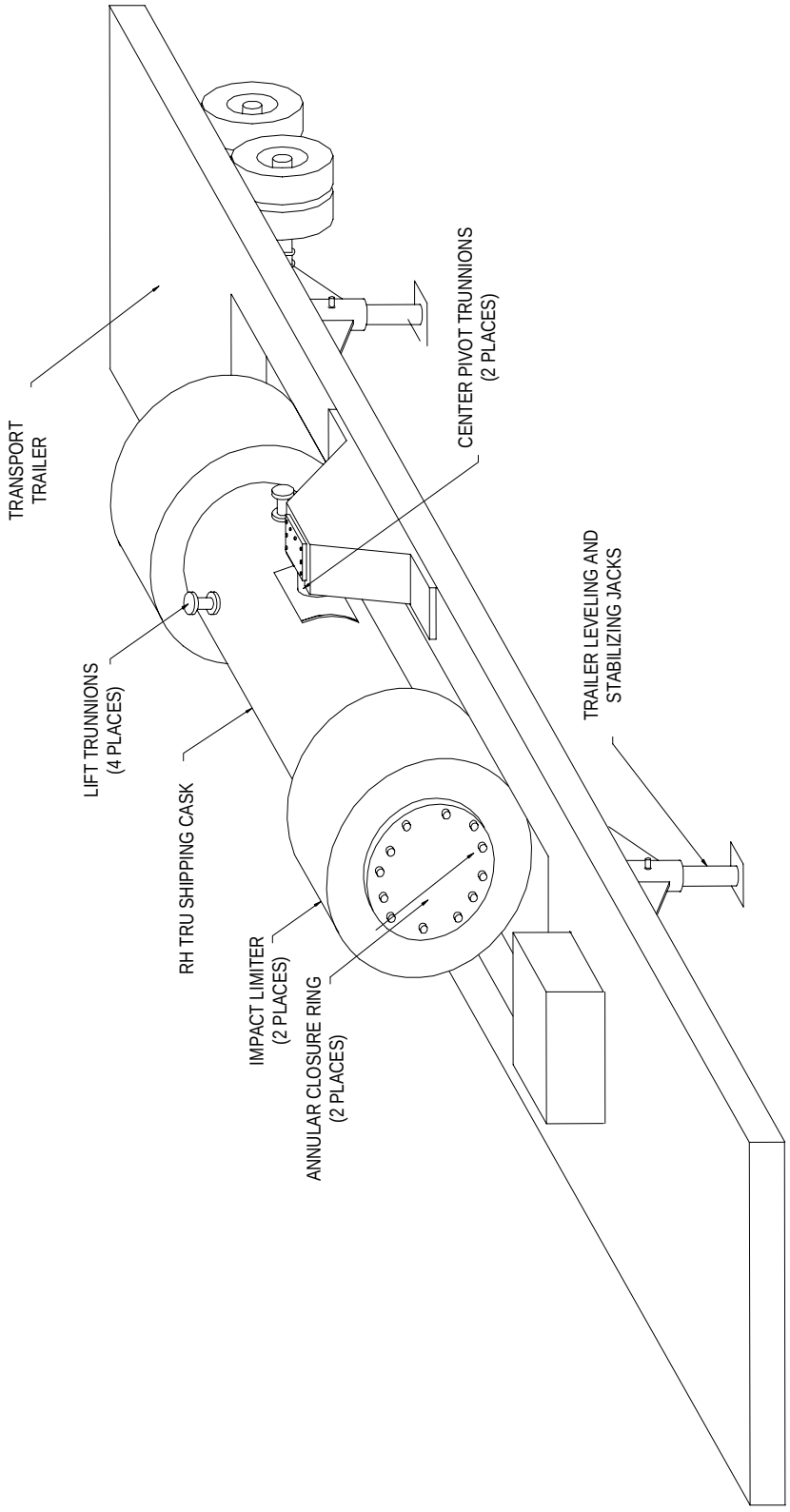
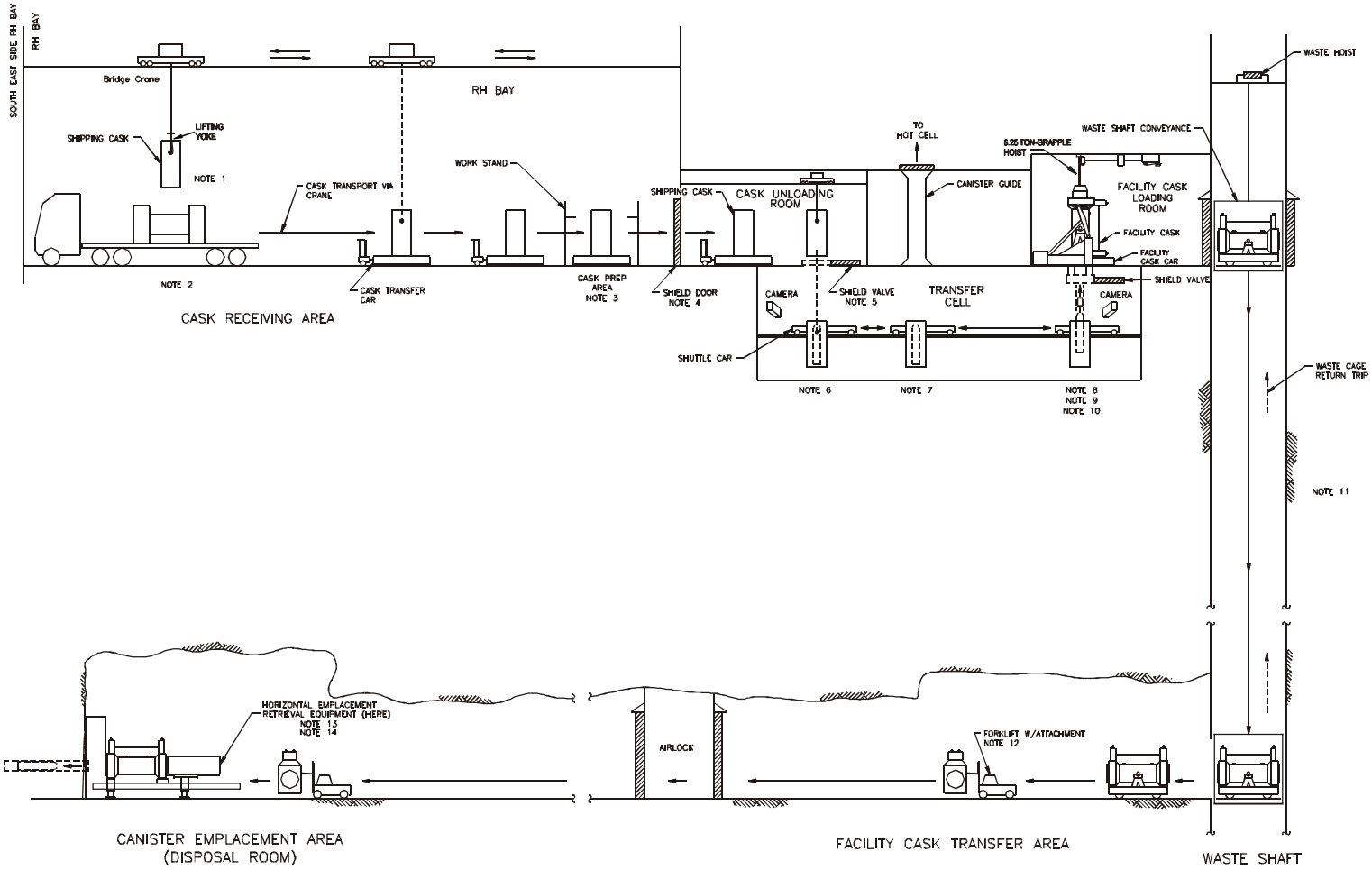


Figure M1-18
RH-TRU 72-B Shipping Cask on Trailer

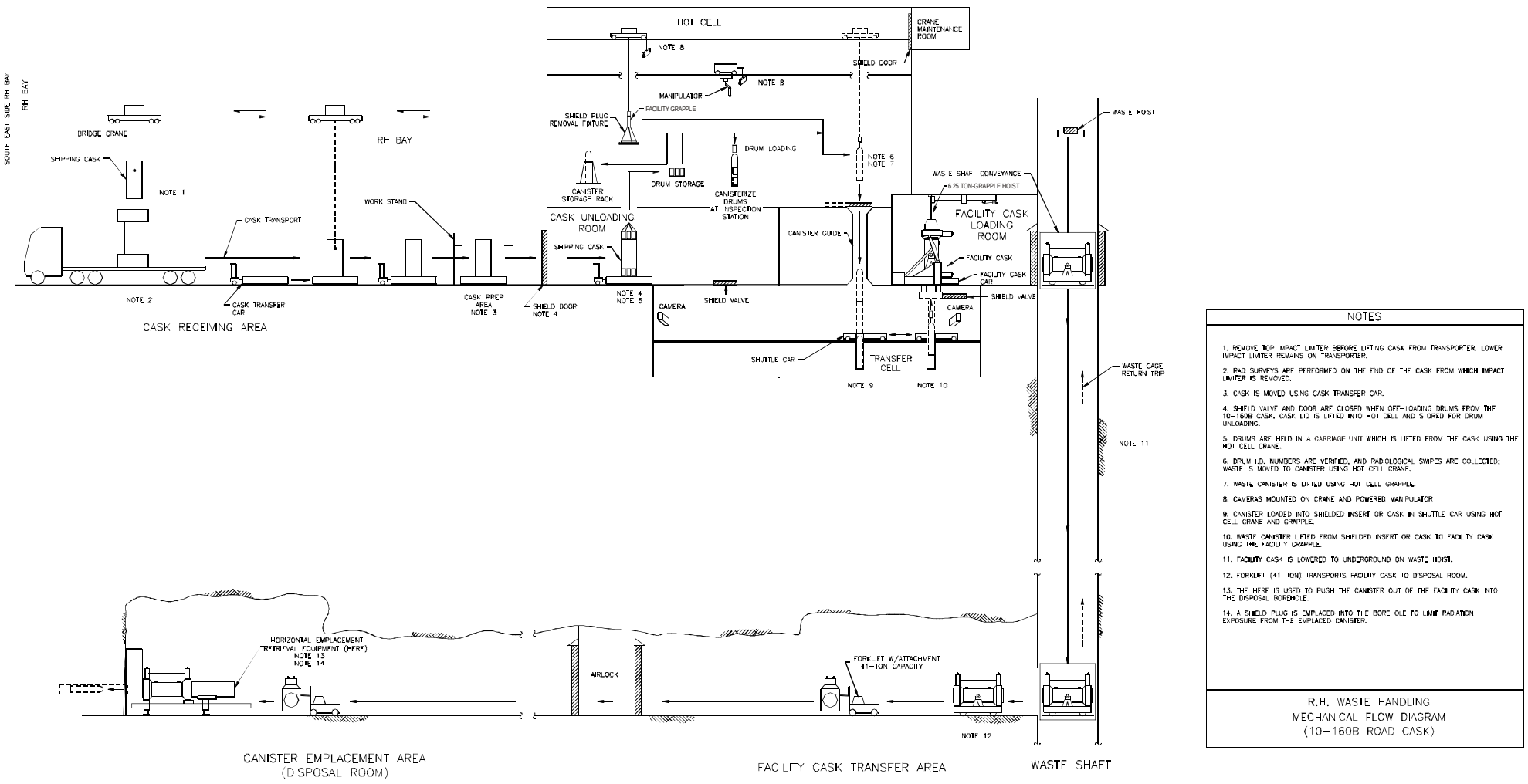


NOTES

1. REMOVE IMPACT LIMITERS BEFORE LIFTING CASK FROM TRANSPORTER WITH 25 TON CRANE.
2. CASK TRANSPORTED TO THE WORK STAND ON CASK TRANSFER CAR.
3. RAD SURVEYS CONDUCTED AND OUTER LID REMOVED
4. SHIELD DOOR IS NOT CLOSED FOR LOADING 72B CASK WITH CANISTER INTO THE TRANSFER CELL.
5. CASK UNLOADING ROOM FLOOR SHIELD VALVE IS CLOSED WHEN 72B CASK WITH CANISTER IS IN TRANSFER CELL.
6. 72B CASK WITH CANISTER IS LOWERED INTO THE TRANSFER CELL SHUTTLE CAR.
7. CASK INNER LID DETENSIONED ROBOTICALLY.
8. CASK INNER LID REMOVED WITH THE FACILITY GRAPPLE AND CHECKED FOR CONTAMINATION ROBOTICALLY PRIOR TO REMOVING CANISTER.
9. SWIPES TAKEN ROBOTICALLY AND CHECKED FOR CONTAMINATION AS CANISTER IS RAISED INTO FACILITY CASK.
10. WASTE CANISTER LIFTED USING FACILITY GRAPPLE INTO FACILITY CASK.
11. WASTE IS LOWERED TO THE UNDERGROUND FOR DISPOSAL.
12. FORKLIFT (41-TON) IS USED TO TRANSFER THE FACILITY CASK TO THE DISPOSAL ROOM.
13. THE HERE IS USED TO PUSH THE CANISTER OUT OF THE FACILITY CASK INTO THE DISPOSAL BOREHOLE.
14. A SHIELD PLUG IS THEN EMPLACED OVER THE BOREHOLE TO MINIMIZE RADIATION EXPOSURE FROM THE EMPLACED CANISTER.

R.H. WASTE HANDLING
MECHANICAL FLOW DIAGRAM
(72B CASK)

Figure M1-28
Schematic of the RH Transuranic Waste Process for the RH-TRU 72-B Shipping Cask



NOTES

1. REMOVE TOP IMPACT LIMITER BEFORE LIFTING CASK FROM TRANSPORTER. LOWER IMPACT LIMITER REMAINS ON TRANSPORTER.
2. RAD SURVEYS ARE PERFORMED ON THE END OF THE CASK FROM WHICH IMPACT LIMITER IS REMOVED.
3. CASK IS MOVED USING CASK TRANSFER CAR.
4. SHIELD VALVE AND DOOR ARE CLOSED WHEN OFF-LOADING DRUMS FROM THE 10-160B CASK. CASK LID IS LIFTED INTO HOT CELL AND STORED FOR DRUM UNLOADING.
5. DRUMS ARE HELD IN A CARRIAGE UNIT WHICH IS LIFTED FROM THE CASK USING THE HOT CELL CRANE.
6. DRUM I.D. NUMBERS ARE VERIFIED, AND RADIOLOGICAL SWIPES ARE COLLECTED; WASTE IS MOVED TO CANISTER USING HOT CELL CRANE.
7. WASTE CANISTER IS LIFTED USING HOT CELL GRAPPLE.
8. CAMERAS MOUNTED ON CRANE AND POWERED MANIPULATOR
9. CANISTER LOADED INTO SHIELDED INSERT OR CASK IN SHUTTLE CAR USING HOT CELL CRANE AND GRAPPLE.
10. WASTE CANISTER LIFTED FROM SHIELDED INSERT OR CASK TO FACILITY CASK USING THE FACILITY GRAPPLE.
11. FACILITY CASK IS LOWERED TO UNDERGROUND ON WASTE HOIST.
12. FORKLIFT (41-TON) TRANSPORTS FACILITY CASK TO DISPOSAL ROOM.
13. THE HERE IS USED TO PUSH THE CANISTER OUT OF THE FACILITY CASK INTO THE DISPOSAL BOREHOLE.
14. A SHIELD PLUG IS EMPLACED INTO THE BOREHOLE TO LIMIT RADIATION EXPOSURE FROM THE EMPLACED CANISTER.

R.H. WASTE HANDLING
MECHANICAL FLOW DIAGRAM
(10-160B ROAD CASK)

Figure M1-29
Schematic of the RH Transuranic Waste Process for the CNS 10-160B Shipping Cask

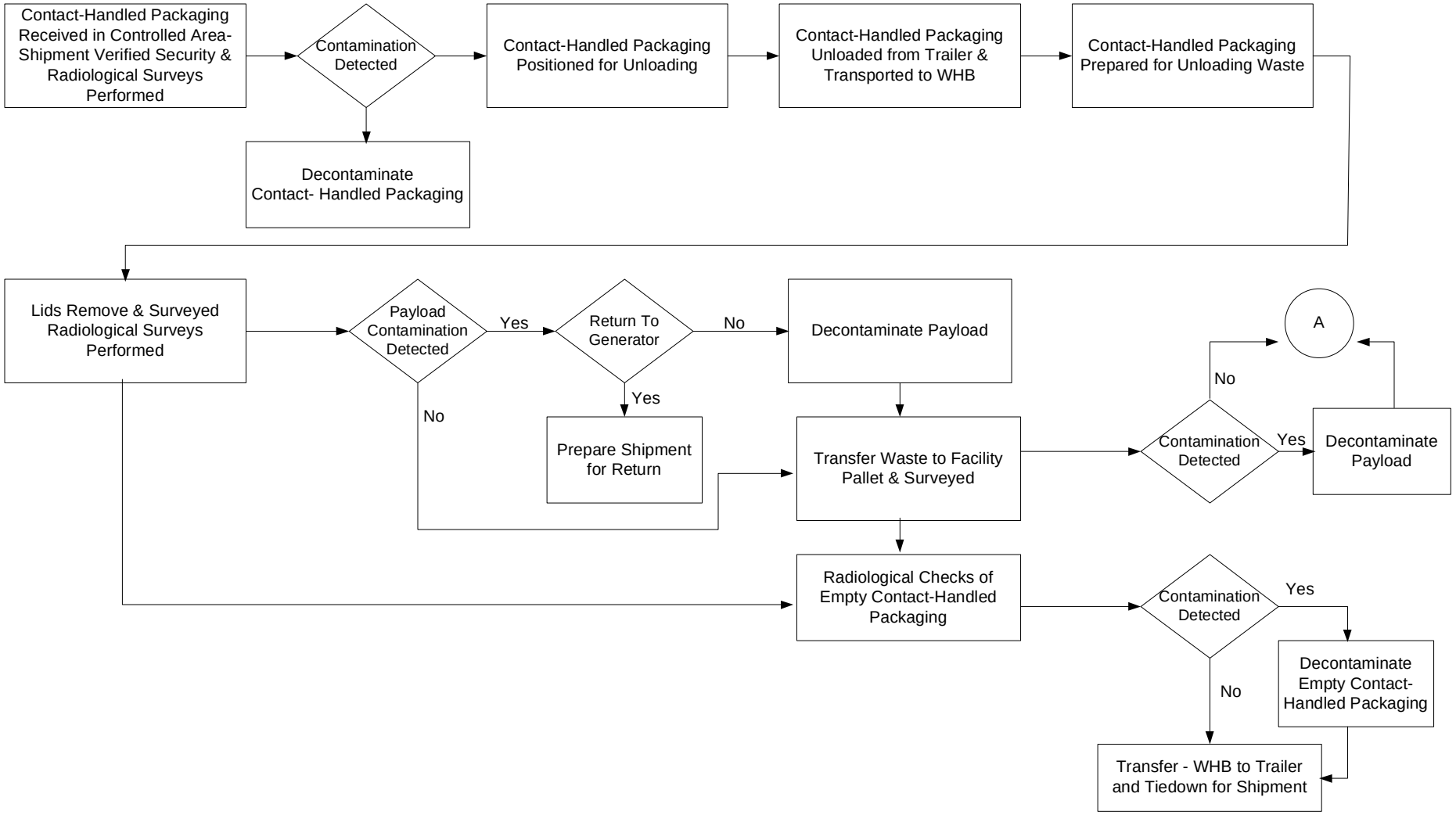


Figure M2-12

WIPP Facility Surface and Underground CH Transuranic Mixed Waste Process Flow

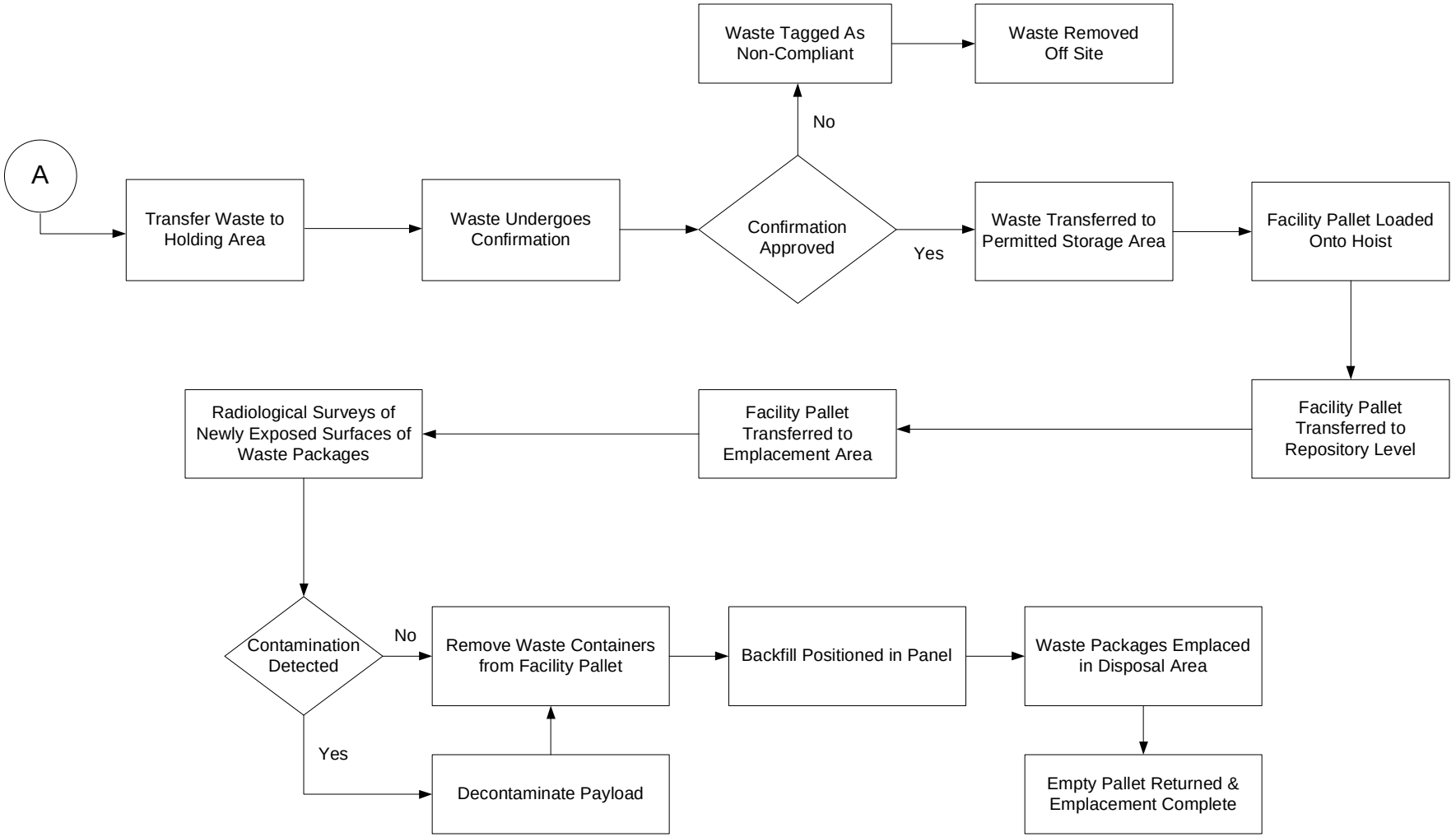


Figure M2-12

WIPP Facility Surface and Underground CH Transuranic Mixed Waste Process Flow (continued)

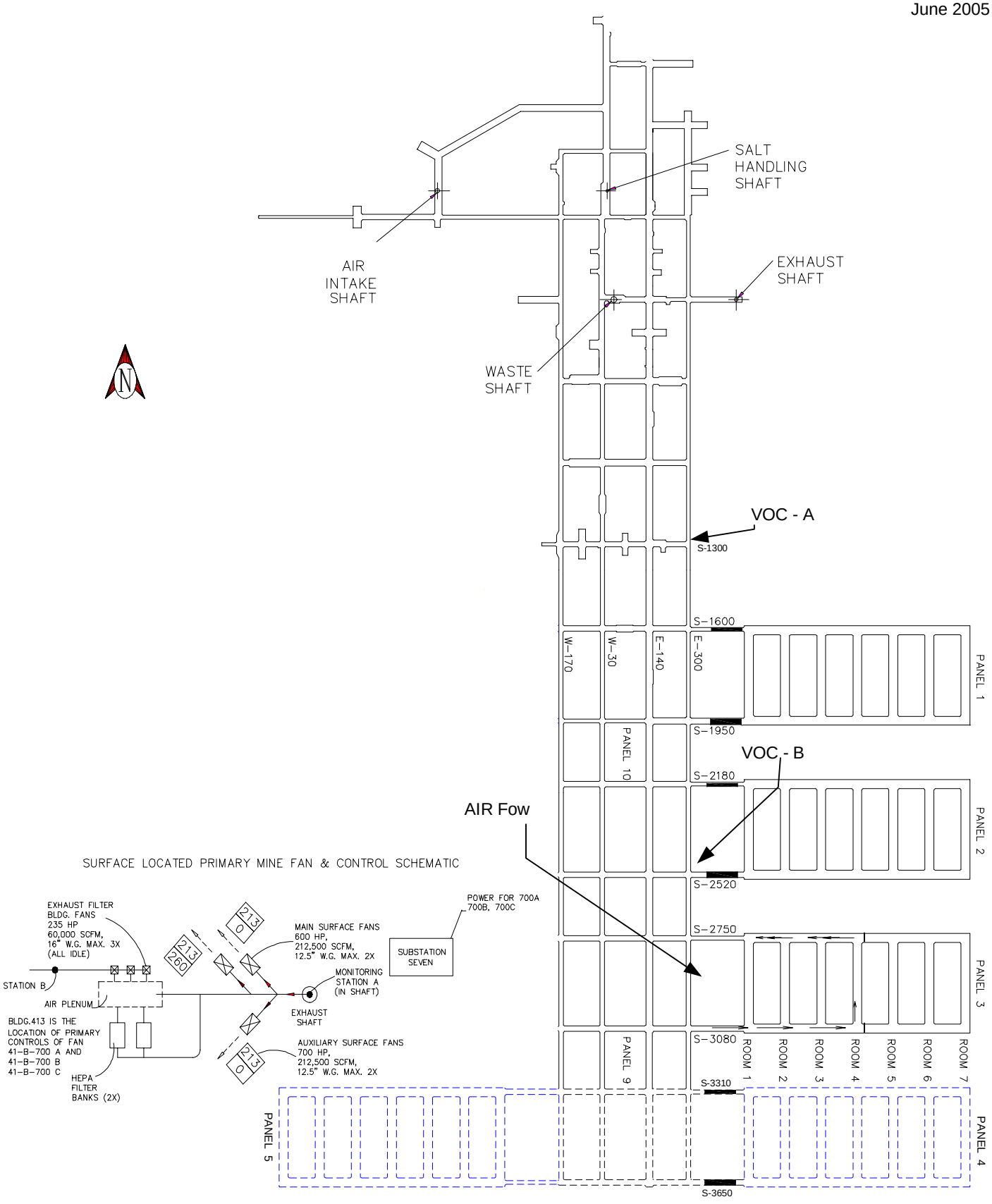


Figure N-1
Panel Flow Area

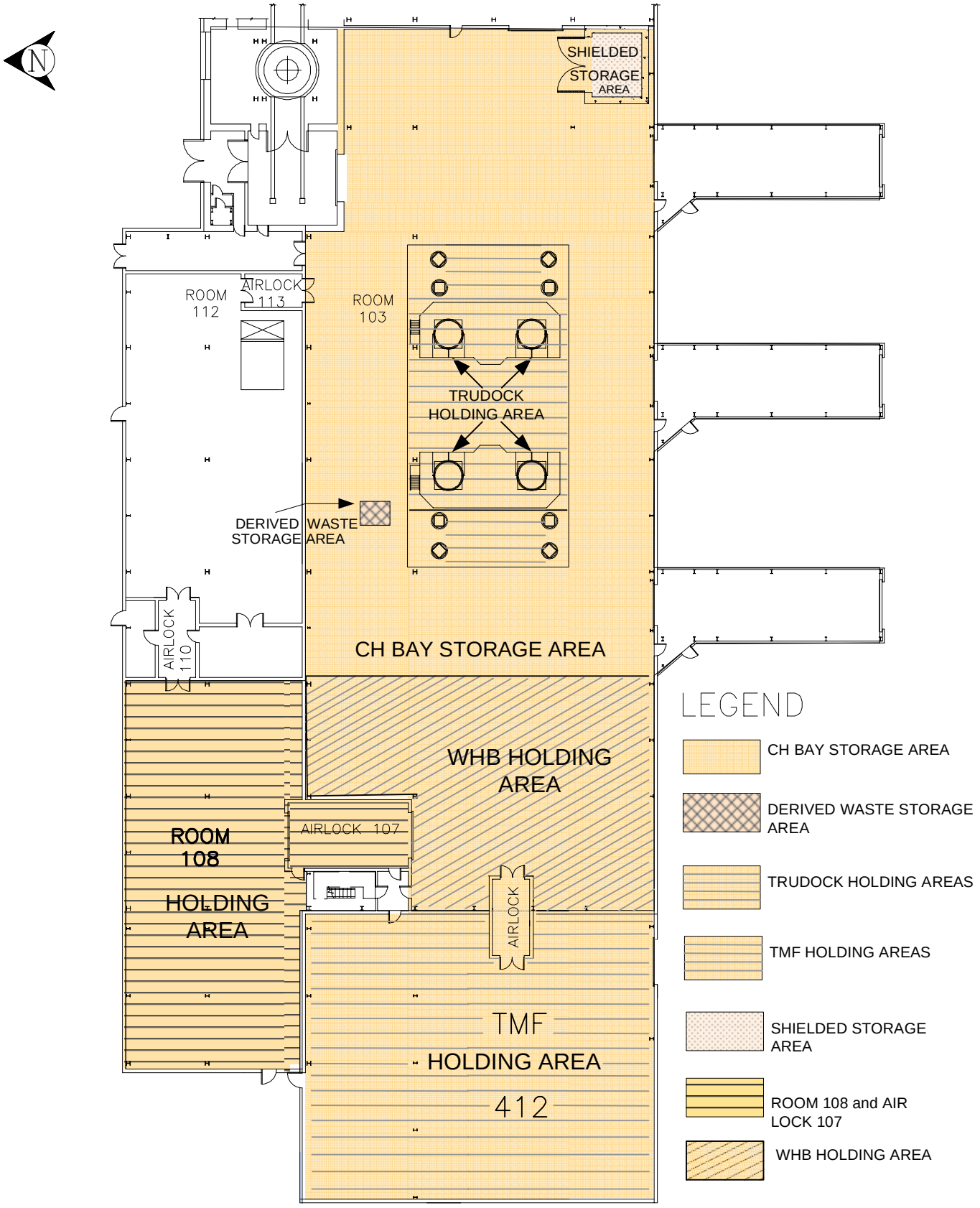


Figure O3-3
Waste Handling Building - Container Storage and Holding Areas

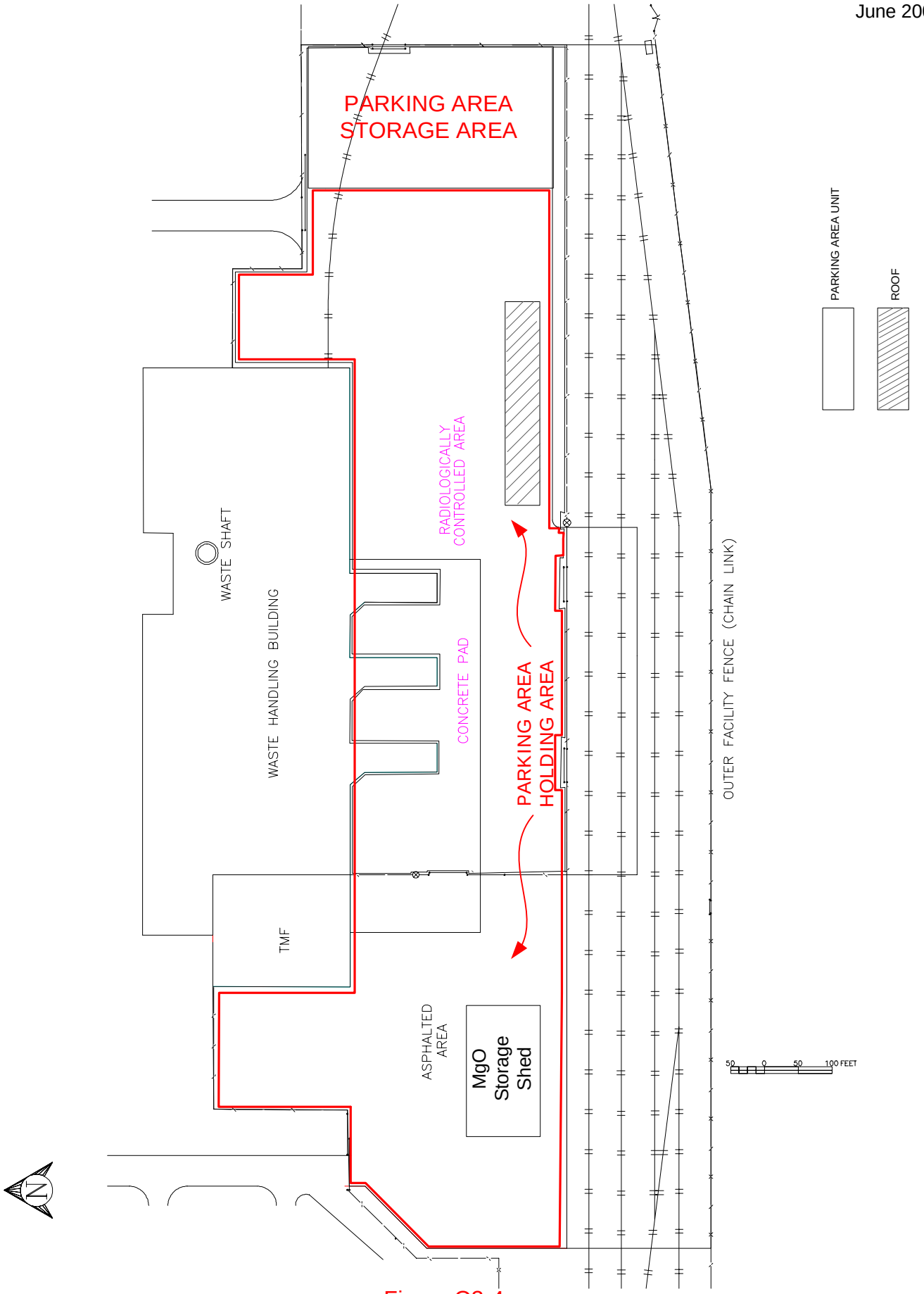


Figure O3-4
Parking Area - Container Storage Areas