

**III. MODULE III - CONTAINER STORAGE**

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III.A. DESIGNATED CONTAINER STORAGE UNITS

This Module authorizes the storage and management of ~~contact-handled (CH)~~ transuranic (TRU) mixed waste containers in the Waste Handling Building and Parking Area Container Storage Units described below. Specific facility and process information for the storage, and management of CH TRU mixed waste in these Container Storage Units is incorporated in Permit Attachment M1 (Container ~~Storage~~ Management).

III.A.1. Waste Handling Building Container Storage Unit

The Waste Handling Building Container Storage Unit (**WHB Unit**) is located in the Waste Handling Building (**WHB**) at the WIPP facility. The WHB Unit consists of the WHB CH Bay and the RH Complex. The areas and storage capacities for the WHB unit are defined in Table III.A.1. ~~comprises a total enclosed area of approximately 84,000 ft<sup>2</sup> (7,804 m<sup>2</sup>). The WHB Unit shall comprise a surface area of no more than 33,175 ft<sup>2</sup> (3,082 m<sup>2</sup>) within the WHB CH Bay, as depicted in Permit Attachment M1, Figure M1-1~~

The Permittees may store and manage TRU mixed waste in the WHB Unit, provided the Permittees comply with the following conditions:

- III.A.1.a Storage containers - the Permittees shall store TRU mixed waste in containers specified in Permit Condition III.C.1.
- III.A.1.b Storage locations and quantities - the Permittees may store TRU mixed waste containers in ~~four (4)~~ eight (8) locations in the WHB Unit and RH Complex, as specified in Table III.A.1 below and depicted in Permit Attachment M1, Figures M1-71 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 below.

<b>Table III.A.1- WHB Unit</b>			
<b>Description</b>	<b>Area</b>	<b>Maximum Capacity</b>	<b>Container Equivalent</b>
TRUDOCK Storage Area	4,734 ft <sup>2</sup> (440 m <sup>2</sup> )	530.4 ft <sup>3</sup> (15 m <sup>3</sup> )	Contents of 4 Content Handled Packages
NE Storage Area	2,924 ft <sup>2</sup> (272 m <sup>2</sup> )	1856 ft <sup>3</sup> (52.6 m <sup>3</sup> )	7 <u>17</u> loaded facility pallets
<u>CH Bay Storage Area</u>	<u>20,574 ft<sup>2</sup></u> <u>(1,914 m<sup>2</sup>)</u>	<u>5,440 ft<sup>3</sup></u> <u>154.7 m<sup>3</sup></u>	
SE (Shielded) Storage Area	292.5 ft <sup>2</sup> (27.2 m <sup>2</sup> )	265 <u>320</u> ft <sup>3</sup> (7.5 <u>9.1</u> m <sup>3</sup> )	1 loaded facility pallet
Derived Waste Storage Area	48 ft <sup>2</sup> (4.46 m <sup>2</sup> )	66.3 ft <sup>3</sup> (1.88 m <sup>3</sup> )	1 Standard Waste Box
<b><u>Total for CH TRU Waste</u></b>	<b><u>20,914.5 ft<sup>2</sup></u></b> <b><u>(1,945.7m<sup>2</sup>)</u></b>	<b><u>5,826.3 ft<sup>3</sup></u></b> <b><u>247.6 m<sup>3</sup></u></b>	
<u>RH Bay</u>	<u>12,552 ft<sup>2</sup></u> <u>(1166 m<sup>2</sup>)</u>	<u>146.93 ft<sup>3</sup></u> <u>(4.16 m<sup>3</sup>)</u>	<u>2 loaded casks and 1 drum of derived waste</u>
<u>Cask Unloading Room</u>	<u>382 ft<sup>2</sup></u> <u>(36 m<sup>2</sup>)</u>	<u>73.45 ft<sup>3</sup></u> <u>(2.08 m<sup>3</sup>)</u>	<u>1 loaded cask</u>
<u>Hot Cell</u>	<u>1,841 ft<sup>2</sup></u> <u>(171 m<sup>2</sup>)</u>	<u>262.02 ft<sup>3</sup></u> <u>(7.42 m<sup>3</sup>)</u>	<u>10 drums and 6 canisters and 1 drum of derived waste</u>
<u>Transfer Cell</u>	<u>1,003 ft<sup>2</sup></u> <u>(93 m<sup>2</sup>)</u>	<u>31.43 ft<sup>3</sup></u> <u>(0.89 m<sup>3</sup>)</u>	<u>1 canister</u>
<u>Facility Cask Loading Room</u>	<u>1,625 ft<sup>2</sup></u> <u>(151 m<sup>2</sup>)</u>	<u>31.43 ft<sup>3</sup></u> <u>(0.89 m<sup>3</sup>)</u>	<u>1 canister</u>
<b><u>Total for RH TRU Mixed Waste</u></b>	<b><u>17,403 ft<sup>2</sup></u></b> <b><u>(1,617 m<sup>2</sup>)</u></b>	<b><u>545.26 ft<sup>3</sup></u></b> <b><u>(15.44 m<sup>3</sup>)</u></b>	
<b><u>Facility Total</u></b>	<b><u>38,317.5 ft<sup>2</sup></u></b> <b><u>(3,562.7 m<sup>2</sup>)</u></b>	<b><u>2718 6,371.6 ft<sup>3</sup></u></b> <b><u>(77 263.04m<sup>3</sup>)</u></b>	

- 1 III.A.1.c. Storage on facility pallets Use of pallets - the Permittees shall  
2 store place TRU mixed waste containers unloaded from the  
3 Contact Handled Packages (**TRUPACT-II or HalfPACT**  
4 shipping containers) on facility pallets in the WHB Unit, as  
5 described in Permit Attachment M1, Section M1-1c(1).  
6
- 7 III.A.1.d. Storage of derived waste - the Permittees shall store containers  
8 of TRU mixed derived waste only in the Derived Waste Storage  
9 Area or in the RH Bay and RH Hot Cell. The Permittees shall  
10 store the derived waste containers on a pallet that provides  
11 secondary containment and elevates the containers at least 6  
12 inches above the floor to protect them from contact with  
13 accumulated liquid.  
14
- 15 III.A.1.e. Storage time limit - the Permittees shall not store a TRU  
16 mixed waste container in the WHB Unit for more than  
17 sixty (60) calendar days, with the exception of the  
18 Derived Waste Storage Areas, where derived waste may  
19 be accumulated and stored until the container is full.  
20
- 21 III.A.1.f. Minimum aisle space - the Permittees shall maintain a minimum  
22 aisle space of 44 inches (1.1 m) between facility pallets ~~in the~~  
23 ~~WHB Unit~~ of CH TRU mixed waste. For RH TRU mixed waste,  
24 sufficient aisle space will be maintained to assure that emergency  
25 equipment can be accessed or moved to the necessary locations.  
26
- 27 III.A.1.g. Storage of RH TRU Mixed Waste Containers - the Permittees  
28 shall store RH TRU mixed waste in casks, canisters, or drums  
29 in the RH Complex as described in Permit Attachment M1,  
30 Section M1-1c(1).  
31
- 32 III.A.1.h. RH TRU mixed waste storage time limit - the Permittees shall  
33 not store a RH TRU mixed waste container in the RH Complex  
34 for more than sixty (60) calendar days.  
35
- 36 III.A.1.i. RH TRU mixed waste minimum aisle space - RH TRU Mixed  
37 Waste - the Permittees shall maintain adequate aisle space of 44  
38 inches (1.1 m) between loaded casks in the RH Bay. Aisle space  
39 shall not apply to other locations within the RH Complex  
40 because waste containers are stored in racks. Sufficient space  
41 shall always be provided to allow the unobstructed movement of  
42 emergency equipment. Empty RH containers, casks or drums are  
43 not subject to aisle space requirements.  
44



1 Area Unit.

2  
3 III.A.2.d. Storage time limit -the Permittees shall not store sealed Contact- ~~or Remote-~~  
4 Handled Packages in the Parking Area Unit for more than fifty-nine (59) days  
5 after the date the Inner Containment Vessel (ICV) of the ~~Contact Handled~~  
6 Package was sealed at the generator site. Prior to storing a sealed ~~Contact~~  
7 ~~Handled~~ Package, the Permittees shall verify that the ICV Closure Date for  
8 each ~~Contact Handled~~ Package is recorded in the WIPP Waste Information  
9 System (WWIS) database described in Permit Attachment B.

10  
11 III.A.2.e Minimum aisle space - ~~when Contact- or Remote-Handled Packages contain~~  
12 waste, the Permittees shall maintain a minimum spacing of 4 ft (1.2 m)  
13 between trailers loaded with Contact- ~~or Remote-~~Handled Packages or  
14 between Contact- or Remote-Handled Packages not on trailers.

15  
16 III.B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

17  
18 III.B.1. Permitted Waste

19  
20 The Permittees may store ~~and manage~~ TRU mixed waste in the WHB Unit and Parking Area  
21 Unit, provided the Permittees comply with the following conditions:

22  
23 III.B.1.a. Waste analysis plan - the TRU mixed waste shall be ~~characterized~~ analyzed to  
24 comply with the waste analysis plan specified in Permit Condition II.C.1.

25  
26 III.B.1.b. TSDF Waste acceptance criteria - the TRU mixed waste shall comply with the  
27 treatment, storage, and disposal facility (TSDF) waste acceptance criteria  
28 specified in Permit Condition II.C.3.

29  
30 III.B.1.c Hazardous waste codes numbers - the TRU mixed waste shall contain only  
31 hazardous waste ~~codes~~ numbers specified in Permit Condition II.C.4.

32  
33 III.B.2. Prohibited Waste

34  
35 The Permittees shall not store ~~or manage~~ any TRU mixed waste that fails to comply with  
36 Permit Condition III.B.1.

37  
38 III.C CONDITION OF CONTAINERS

39  
40 If a container holding TRU mixed waste is not in good condition (e.g., severe rusting, apparent  
41 structural defects) or if it begins to leak, the Permittees shall manage the TRU mixed waste containers  
42 specified in Permit Condition III.C.1 as specified in Permit Attachment M1 and in compliance with  
43 20.4.1.500 NMAC (incorporating 40 CFR §264.171).

1 III.C.1 Acceptable Storage Containers

2  
3 The Permittees shall use containers that comply with the requirements for U.S. Department of  
4 Transportation shipping container regulations (49 CFR §173 - Shippers - General  
5 Requirements for Shipment and Packaging, and 49 CFR §178 - Specifications for Packaging)  
6 for storage of TRU mixed waste at WIPP. The Permittees are prohibited from storing TRU  
7 mixed waste in any container not specified in Permit Attachment M1, Section M1-1b, as set  
8 forth below:  
9

10 III.C.1.a Standard 55-gallon (208-liter) drum - with a gross internal volume of 7.3 ft<sup>3</sup>  
11 (0.21 m<sup>3</sup>).

12  
13 III.C.1.b Standard waste box (SWB) - with a gross internal volume of 66.3 ft<sup>3</sup> (1.88 m<sup>3</sup>).

14  
15 III.C.1.c Ten-drum overpack (TDOP) - with a gross internal volume of 160 ft<sup>3</sup> (4.5 m<sup>3</sup>).  
16 TDOPs may be used to contain up to ten standard 55-gallon drums or one SWB.  
17 TDOPs may be direct loaded or used to overpack drums or SWBs containing  
18 CH TRU mixed waste.  
19

20 III.C.1.d 85-gallon (322-liter) drum - with a gross internal volume of up to 11.3 ft<sup>3</sup> (0.32  
21 m<sup>3</sup>). 85-gallon drums may be direct loaded or used for overpacking 55-gallon  
22 drums containing CH TRU mixed waste and for collecting and storing derived  
23 waste.  
24

25 III.C.1.e 100-gallon (379-liter) drum - with a gross internal volume of 13.4 ft<sup>3</sup> (0.38m<sup>3</sup>).  
26 100-gallon drums may be direct loaded with CH TRU mixed waste.  
27

28 III.C.1.f RH TRU Canister - is a cylindrical container designed to confine and handle  
29 the payload of the RH-TRU 72B cask from initial preparation to final disposal  
30 (Figure M1-16a) with a nominal internal volume of 31.43 ft<sup>3</sup> (0.89 m<sup>3</sup>) that shall  
31 contain waste packaged in small containers (e.g., 55-gallon drums) or waste  
32 loaded directly into the canister.  
33

34 III.C.1.g RH TRU Facility Canister - is a cylindrical container designed to confine and  
35 handle the payload of the CNS 10-160B cask once received at WIPP for final  
36 disposal (Figure M1-16).  
37

38 III.C.2 Derived Waste Containers

39  
40 The Permittees shall use standard 55-gallon drums, SWBs, ~~and~~ or 85-gallon  
41 drums ~~overpacks~~ to collect ~~and store,~~ and dispose of derived waste.  
42

1                    III.D    COMPATIBILITY OF WASTE WITH CONTAINERS  
2

3                    The Permittees shall use containers made of or lined with materials which will not react  
4                    with, and are otherwise compatible with, the TRU mixed waste to be stored, so that the  
5                    ability of the container to contain the waste is not impaired, as required by 20.4.1.500  
6                    NMAC (incorporating 40 CFR §264.172).  
7

8                    III.E.    MANAGEMENT OF CONTAINERS  
9

10                  The Permittees shall manage all containers as specified in Permit Attachment M1 and  
11                  shall keep all containers closed during storage, except when it is necessary to add waste  
12                  to derived waste containers. The Permittees shall not open, handle, or store containers in  
13                  a manner which may rupture the container or cause it to leak, as required by 20.4.1.500  
14                  NMAC (incorporating 40 CFR §264.173).  
15

16                  III.F.    CONTAINMENT SYSTEMS  
17

18                  The Permittees shall maintain the secondary containment systems ~~for all containers~~  
19                  ~~managed~~ in the WHB Unit and Parking Area Unit as specified in Permit Attachment  
20                  M1, Section M1-1f, and as required by 20.4.1.500 NMAC (incorporating 40 CFR  
21                  §264.175).  
22

23                  III.G.    INSPECTION SCHEDULES AND PROCEDURES  
24

25                  The Permittees shall inspect the WHB Unit and Parking Area Unit ~~TRU mixed waste~~  
26                  ~~container storage and management areas~~ at least weekly, in accordance with the  
27                  Inspection Schedule (Permit Attachment D, Tables D-1 and D-1a), ~~Inspection Sheets~~  
28                  ~~(Permit Attachment D1)~~, and Permit Attachment M1, Section M1-1e, to detect leaking  
29                  containers and deterioration of containers and the containment system caused by  
30                  corrosion and other factors, as required by 20.4.1.500 NMAC (incorporating 40 CFR  
31                  §264.174).  
32

33                                  III.G.1.    Inspection of 55-Gallon Drum Seven-Packs  
34

35                                  The Permittees shall not be required to inspect the center drum of a 55-gallon seven-pack  
36                                  assembly, as depicted in Permit Attachment M2, Figure M2-6.  
37

38                                  III.G.2.    Inspection of Sealed Contact- ~~or Remote~~-Handled Packages  
39

40                                  The Permittees shall not be required to inspect the contents of sealed Contact- ~~or Remote~~  
41                                  Handled Packages stored in compliance with Permit Condition III.A.2 and Permit  
42                                  Attachment M1, Section M1-1e(2). The Permittees shall attach a clearly legible sign to  
43                                  each Contact- ~~or Remote~~-Handled Packages indicating whether the Contact- ~~or Remote~~-  
44                                  Handled Packages contains TRU mixed waste.  
45

1                    III.H.    CLOSURE  
2

3                    At closure of the WHB Unit and Parking Area Unit, the Permittees shall remove all  
4                    hazardous waste and hazardous waste residues from the containment system, in  
5                    accordance with the procedures in the Closure Plan, Permit Attachment I and Permit  
6                    Condition II.L, as required by 20.4.1.500 NMAC (incorporating 40 CFR §§264.111 and  
7                    264.178).  
8

9                    III.I.    RECORDKEEPING  
10

11                    The Permittees shall place the results of waste analyses in the operating record as  
12                    specified in Permit Condition II.K and Permit Attachment B.  
13  
14