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APR 27 2017

Mr. John E. Kieling, Chief  
 Hazardous Waste Bureau  
 New Mexico Environment Department  
 2905 Rodeo Park Drive East, Building 1  
 Santa Fe, New Mexico 87505-6303

Subject: Class 1 Permit Modification Notification to the Waste Isolation Pilot Plant  
 Hazardous Waste Facility Permit Number: NM4890139088-TSDF

Dear Mr. Kieling:

Enclosed is a Notification of Class 1 Permit Modification for the following item:

- Clarify Maximum Storage Capacity of the CH Bay Storage Area in Permit Part 3, Table 3.1.1, and Attachment A1

We certify under penalty of law that this document and all attachments were prepared under our direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on our inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of our knowledge and belief, true, accurate, and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. George T. Basabilvazo at (575) 234-7488.

Sincerely,

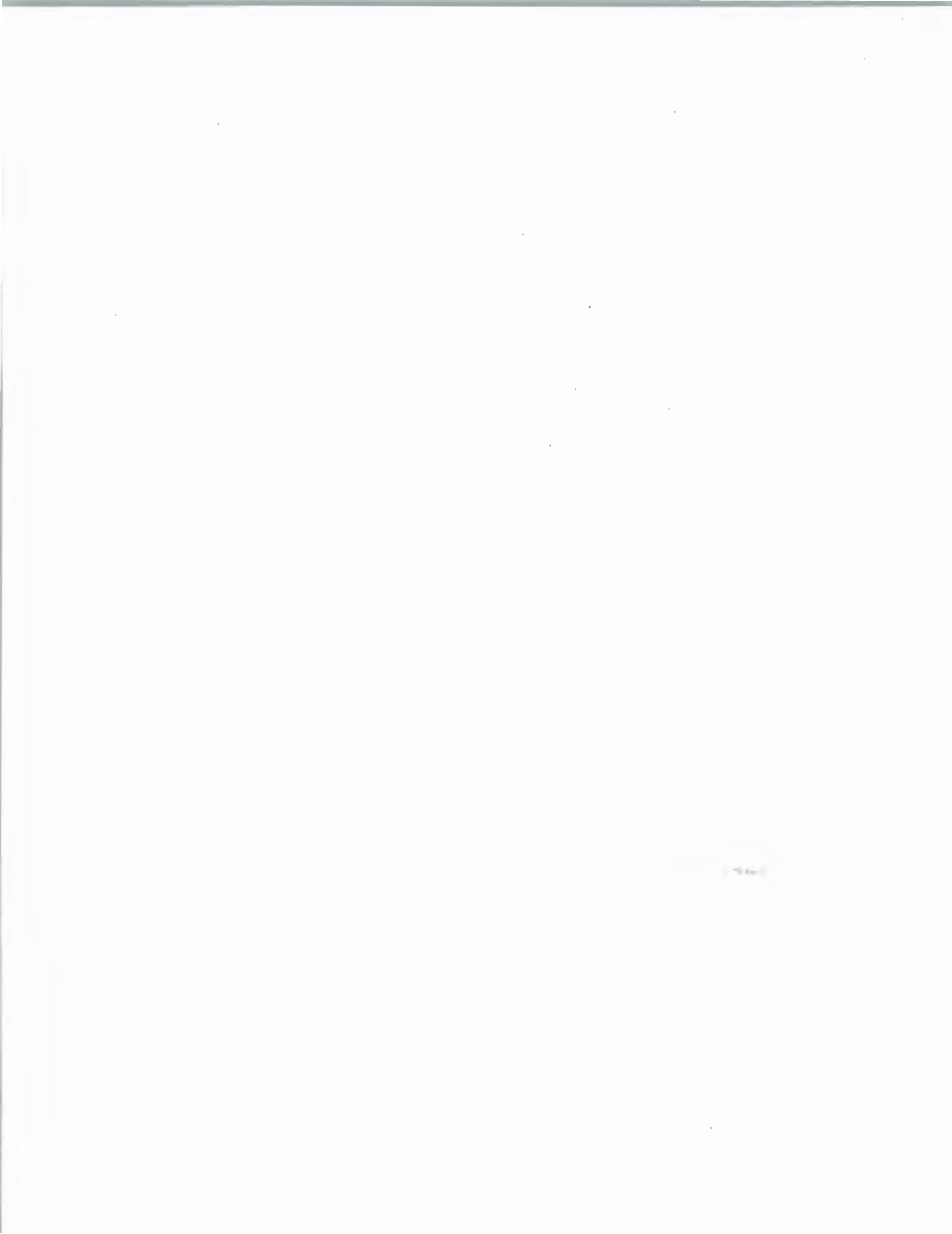
Todd Shrader, Manager  
 Carlsbad Field Office

Philip J. Breidenbach, Project Manager  
 Nuclear Waste Partnership LLC

Enclosure

cc: w/enclosure  
 R. Maestas, NMED \* ED  
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 CBFO M&RC  
 \*ED denotes electronic distribution





**Class 1 Permit Modification Notification**

**Clarify Maximum Storage Capacity of the CH Bay Storage Area in Permit Part 3, Table  
3.1.1, and Attachment A1**

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

**WIPP Permit Number - NM4890139088-TSDF**

**April 2017**

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## Acronyms and Abbreviations

CFR	Code of Federal Regulations
CH	Contact-Handled
NMAC	New Mexico Administrative Code
Permit	Hazardous Waste Facility Permit
PMN	Permit Modification Notification
TDOP	ten-drum overpack
TSDF	treatment, storage, and disposal facility
WHB	Waste Handling Building
WHB Unit	Waste Handling Building Container Storage Unit

## Overview of the Permit Modification Notification

This document contains one Class 1 Permit Modification Notification (**PMN**) for the Waste Isolation Pilot Plant Hazardous Waste Facility Permit (**Permit**) Number NM4890139088-TSDF.

This PMN is being submitted by the U.S. Department of Energy and Nuclear Waste Partnership LLC, collectively referred to as the Permittees, in accordance with Permit Part 1, Section 1.3.1. (20.4.1.900 New Mexico Administrative Code (**NMAC**) incorporating Title 40 of the Code of Federal Regulations (**CFR**) §270.42[a]). The PMN in this document is necessary to notify the New Mexico Environment Department of changes which impact the Permit. These changes do not reduce the ability of the Permittees to provide continued protection to human health and the environment.

The requested modifications to the Permit and any related supporting documents are provided in this PMN. The proposed modifications to the text of the Permit have been identified using red text and double underline and a ~~strikeout~~ font for deleted information. Direct quotations are indicated by italicized text.

**Attachment A**  
**Description of the Class 1 Permit Modification Notification**

**Table 1. Class 1 Hazardous Waste Facility Permit Modification Notification**

Item No.	Affected Permit Section	Change Description	Category
1.	Part 3, Table 3.3.1, Page 3-2 Attachment A1, Section A1-1(c)(1), Page A1-7	<p>This modification clarifies language regarding the maximum quantity of waste that may be stored in the Contact-Handled (CH) Bay Storage Area of the Waste Handling Building (WHB) Container Storage Unit (WHB Unit) by revising Table 3.1.1 to add a footnote to the Container Equivalent column to indicate that the container equivalencies listed represent example potential waste container configurations and do not address other container combinations that are possible.</p> <p>This modification revises Attachment A1, Section A1-1(c)(1) to:</p> <ul style="list-style-type: none"> <li>• Remove text that conflicts with the Permit Part 3, Section 3.1.1.2., and the maximum capacity outlined in Table 3.1.1. for the CH Bay Storage Area and</li> <li>• Refer to Permit Part 3, Table 3.1.1, for the requirements pertaining to the "Maximum Capacity" within the CH Bay Storage Area.</li> </ul>	A.1



## Item 1

### Description

This modification clarifies language regarding the maximum quantity of waste that may be stored in the Contact-Handled (**CH**) Bay Storage Area of the Waste Handling Building (**WHB**) Container Storage Unit (**WHB Unit**) by revising the following areas of the Permit:

- Part 3, Table 3.1.1, *WHB Unit*
- Attachment A1, Section A1-1(c)(1), *Waste Handling Building Container Storage Unit (WHB Unit)*

Table 3.1.1 of Permit Part 3 has been revised to add a footnote to the Container Equivalent column to indicate that the container equivalencies listed represent example potential waste container configurations and do not address other container combinations that are possible.

Attachment A1, Section A1-1(c)(1) has been revised to:

- Remove text that conflicts with the Permit Part 3, Section 3.1.1.2., and the maximum capacity outlined in Table 3.1.1. for the CH Bay Storage Area and
- Refer to Permit Part 3, Table 3.1.1, for the requirements pertaining to the "Maximum Capacity" of the CH Bay Storage Area.

### Basis

These changes are classified as "Administrative and informational changes" and are, therefore, Class 1 modifications pursuant to 20.4.1.900 NMAC (incorporating 40 CFR 270.42, Appendix I, A.1).

### Discussion

Permit Part 3, Section 3.1.1.2., *Storage Locations and Quantities*, states:

*The Permittees may store TRU mixed waste containers in the locations in the WHB Unit, as specified in Table 3.1.1 below and depicted in Permit Attachment A1, Figures A1-1 and A1-17a, 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 3.1.1 below.*

These maximum storage capacities are listed in Table 3.1.1, *WHB Unit*, in the Maximum Capacity column. The volumes associated with the container equivalencies listed in the Container Equivalent column do not necessarily equate to the volumes listed in the Maximum Capacity column. For example, for the CH Bay Storage Area, the volume associated with 13 loaded facility pallets and four CH packages at the TRUDOCKS only equates to 4,800 cubic feet if the waste containers are ten-drum overpacks (**TDOPs**), calculated as follows:

13 facility pallets with 2 TDOPs per pallet = 26 TDOPs

4 CH packages at the TRUDOCKS each containing one TDOP = 4 TDOPs

30 total TDOPs at 160 ft<sup>3</sup> each (per the Permit, Part 3, Section 3.3.1.3.) = 4,800 ft<sup>3</sup>

Other waste container configurations (e.g., 7-packs of 55-gallon drums, standard waste boxes) could require more than 13 loaded facility pallets in order to achieve the maximum volume capacity. Therefore, the footnote, "The container equivalents listed are examples of potential waste container configurations; this is not a comprehensive list and other container combinations are possible. For example, for the CH Bay Storage Area, the volume associated with 13 loaded facility pallets and 4 CH packages at the TRUDOCKs equates to 4,800 ft<sup>3</sup> if the waste containers are ten-drum overpacks; other waste container configurations (e.g., 7-packs of 55-gallon drums, standard waste boxes) could require more than 13 loaded facility pallets in order to achieve the maximum volume capacity," has been added to the Container Equivalent column of Table 3.1.1. for clarification.

There is a conflict between the Permit language of Part 3, Section 3.1.1.2. and Attachment A1, Section A1-1(c)(1). As stated above, Section 3.1.1.2, specifically states that the quantities of waste stored in the WHB Unit are "not to exceed the maximum capacities specified in Table 3.1.1..." However, Attachment A1, Section A1-1(c)(1), contains a statement that limits the maximum storage capacity in the CH Bay Storage Area of the WHB Unit to the container equivalency outlined in Table 3.1.1. As described above, the "Maximum Capacity" and "Container Equivalent" columns of Table 3.1.1. are not necessarily equal to one another (i.e., the "Container Equivalent" column does not reflect the various container combinations that could potentially be stored in the WHB Unit). As a result, text changes have been made to Section A1-1(c)(1) to remove the language that conflicts with Part 3, Section 3.1.1.2. and Table 3.1.1, and to add a reference to Part 3 of the Permit. These revisions are further supported by clarification which was provided previously to the Permittees in the first Administrative Order, dated February 27, 2014, which stated in Paragraph 12(e), "For this Order, Table 3.1.1 Maximum Capacities for the CH Bay Storage Area shall be based on the volume limit values and not the Container Equivalent value."

These changes are needed to provide clarification to and remove conflicting language within the existing Permit text.

**Proposed Revised Permit Text and Table:**

**3.1.1. Waste Handling Building Container Storage Unit**

<b>Table 3.1.1 - WHB Unit</b>			
<b>Description</b>	<b>Area</b>	<b>Maximum Capacity</b>	<b>Container Equivalent*</b>
CH Bay Storage Area	32,307ft <sup>2</sup> (3,001 m <sup>2</sup> )	4,800 ft <sup>3</sup> (135.9 m <sup>3</sup> )	13 loaded facility pallets and 4 CH Packages at the TRUDOCKS
CH Bay Surge Storage Area	included in CH Bay Storage Area	1,600 ft <sup>3</sup> (45.3 m <sup>3</sup> )	5 loaded facility pallets
Derived Waste Storage Area	included in CH Bay Storage Area	66.3 ft <sup>3</sup> (1.88 m <sup>3</sup> )	1 Standard Waste Box
<b>Total for CH Waste</b>	<b>32,307 ft<sup>2</sup> (3,001 m<sup>2</sup>)</b>	<b>6,466.3 ft<sup>3</sup> 183.1 m<sup>3</sup></b>	
RH Bay	12,552 ft <sup>2</sup> (1,166 m <sup>2</sup> )	156 ft <sup>3</sup> (4.4 m <sup>3</sup> )	2 loaded casks and 1 drum of derived waste
Cask Unloading Room	382 ft <sup>2</sup> (36 m <sup>2</sup> )	74 ft <sup>3</sup> (2.1 m <sup>3</sup> )	1 loaded cask
Hot Cell	1,841 ft <sup>2</sup> (171 m <sup>2</sup> )	94.9 ft <sup>3</sup> (2.7 m <sup>3</sup> )	12 drums and 1 drum of derived waste
Transfer Cell	1,003 ft <sup>2</sup> (93 m <sup>2</sup> )	31.4 ft <sup>3</sup> (0.89 m <sup>3</sup> )	1 canister
Facility Cask Loading Room	1,625 ft <sup>2</sup> (151 m <sup>2</sup> )	31.4 ft <sup>3</sup> (0.89 m <sup>3</sup> )	1 canister
<b>Total for RH Waste</b>	<b>17,403 ft<sup>2</sup> (1,617 m<sup>2</sup>)</b>	<b>387.7 ft<sup>3</sup> (11.0 m<sup>3</sup>)</b>	
<b>Facility Total</b>	<b>49,710 ft<sup>2</sup> (4,618 m<sup>2</sup>)</b>	<b>6,854 ft<sup>3</sup> (194.1 m<sup>3</sup>)</b>	

\*The container equivalents listed are examples of potential waste container configurations; this is not a comprehensive list and other container combinations are possible. For example, for the CH Bay Storage Area, the volume associated with 13 loaded facility pallets and 4 CH packages at the TRUDOCKs equates to 4,800 ft<sup>3</sup> if the waste containers are ten-drum overpacks; other waste container configurations (e.g., 7-packs of 55-gallon drums, standard waste boxes) could require more than 13 loaded facility pallets in order to achieve the maximum volume capacity.

## ATTACHMENT A1

### A1-1c(1) Waste Handling Building Container Storage Unit (WHB Unit)

#### CH TRU Mixed Waste

The CH Bay Storage Area, which is shown in Figure A1-1, will be clearly marked to indicate the lateral limits of the storage area. ~~This CH Bay Storage Area will have a maximum capacity of 13 pallets (4,160 ft<sup>3</sup> [118 m<sup>3</sup>]) of TRU mixed waste containers during normal operations.~~ TRU mixed waste may be stored in the CH Bay Storage Area of the WHB Unit in quantities not to exceed the "Maximum Capacity" specified in Part 3, Table 3.1.1.