



**Department of Energy**  
 Carlsbad Field Office  
 P. O. Box 3090  
 Carlsbad, New Mexico 88221  
**MAR 21 2019**



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

**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:

- Report Final LWA TRU Waste Volumes for filled Panels 1 through 6 in Permit Part 4, Table 4.1.1

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. Michael R. Brown at (575) 234-7476.

Sincerely,

*[Signature]*  
 for Todd Shrader, Manager  
 Carlsbad Field Office

*[Signature]*  
 for Bruce C. Covert, Project Manager  
 Nuclear Waste Partnership LLC

Enclosure

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

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**Class 1 Permit Modification Notification**

**Report Final LWA TRU Waste Volumes for filled Panels 1 through 6 in Permit Part 4,  
Table 4.1.1**

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

**WIPP Permit Number - NM4890139088-TSDF**

**March 2019**

## Table of Contents

Transmittal Letter

Table of Contents.....	i
Acronyms, Abbreviations, and Units.....	ii
Overview of the Permit Modification Notification.....	1
Attachment A Description of the Class 1 Permit Modification Notification.....	A-1
Table 1. Class 1 Hazardous Waste Facility Permit Modification Notification.....	A-2
Item 1.....	A-3
Description.....	A-3
Basis.....	A-3
Discussion.....	A-3
Revised Permit Text:.....	A-4

### Acronyms, Abbreviations, and Units

CFR	Code of Federal Regulations
CH	contact-handled
DOE	U.S. Department of Energy
ft <sup>3</sup>	cubic foot
LWA	Land Withdrawal Act
m <sup>3</sup>	cubic meter
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
Permit	Waste Isolation Pilot Plant Hazardous Waste Facility Permit
PMN	Permit Modification Notification
RH	remote-handled
TRU	transuranic
WDS	Waste Data System
WIPP	Waste Isolation Pilot Plant

## Overview of the Permit Modification Notification

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

This PMN is being submitted by the U.S. Department of Energy (**DOE**) 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 (**NMED**) of a change which impacts the Permit. This change does not reduce the ability of the Permittees to provide continued protection to human health and the environment.

The modification to the Permit and any related supporting documents are provided in this PMN. The modification to the text of the Permit has been identified using **red** text and **double underline** and a ~~strikeout~~ font for deleted information. All 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 4, Table 4.1.1, <i>Underground HWDUs</i>	This modification is to report the final Land Withdrawal Act (LWA) transuranic (TRU) waste volumes for filled Panels 1 through 6 in Permit Part 4, Table 4.1.1, <i>Underground HWDUs</i> . The LWA TRU waste volumes being reported are to the nearest hundredth cubic foot (ft <sup>3</sup> ) and nearest hundredth cubic meter (m <sup>3</sup> ) to be consistent with Waste Data System (WDS) reporting. Therefore, the Permittees are also revising the volumes in the <i>Final TRU Mixed Waste Volume</i> column for filled Panels 1 through 6 from the nearest hundred ft <sup>3</sup> and m <sup>3</sup> to the nearest hundredth ft <sup>3</sup> and m <sup>3</sup> . To address these changes, the Permittees are revising the note at the bottom of the table to state that " <i>The final TRU mixed waste and final LWA TRU waste volumes in Table 4.1.1 are reported to the nearest hundredth ft<sup>3</sup> and m<sup>3</sup>.</i> "	A.1

## Item 1

### Description

This modification is to report the final Land Withdrawal Act (LWA) transuranic (TRU) waste volumes for filled Panels 1 through 6 in Permit Part 4, Table 4.1.1, *Underground HWDUs*. The LWA TRU waste volumes being reported are to the nearest hundredth cubic foot (ft<sup>3</sup>) and nearest hundredth cubic meter (m<sup>3</sup>) to be consistent with Waste Data System (WDS) reporting. Therefore, the Permittees are also revising the volumes in the *Final TRU Mixed Waste Volume* column for filled Panels 1 through 6 from the nearest hundred ft<sup>3</sup> and m<sup>3</sup> to the nearest hundredth ft<sup>3</sup> and m<sup>3</sup>. To address these changes, the Permittees are revising the note at the bottom of the table to state that "*The final TRU mixed waste and final LWA TRU waste volumes in Table 4.1.1 are reported to the nearest hundredth ft<sup>3</sup> and m<sup>3</sup>.*"

### Basis

This change is classified as an "Administrative and informational change" and is, therefore, a Class 1 modification pursuant to 20.4.1.900 NMAC (incorporating 40 CFR 270.42 Appendix I, A.1).

### Discussion

A revision to Permit Part 4, Table 4.1.1, was directed by the NMED in a letter dated December 21, 2018, which approved the Class 3 PMR entitled "Clarification of TRU Mixed Waste Disposal Volume Reporting." The letter directed the Permittees to submit a Class 1 Permit modification to report the Final LWA TRU Waste Volume for filled Panels 1 through 6 no later than April 22, 2019, which is 90 days from the effective date of the revised Permit. This change is needed to comply with NMED's December 21, 2018 direction.

The volumes reported in Permit Part 4, Table 4.1.1, are derived from the WDS. The WDS provides the total volume of contact-handled (CH) and remote-handled (RH) waste emplaced in each panel, both for TRU mixed waste and for LWA TRU waste. The WDS is a web-based software system used by the Permittees to gather, store, and process information pertaining to CH and RH TRU waste. The WDS is used to store TRU waste information regarding waste containers, shipments, and emplacement at the WIPP facility. The WDS is also used to create associated documentation and reports. The WDS includes the elements of the WIPP Waste Information System specified in Permit Part 2, Section 2.3.1.7 and described in Permit Attachment C, Section C-5a(1).

The Permittees are revising the volumes in the *Final TRU Mixed Waste Volume* column for filled Panels 1 through 6 from the nearest hundred ft<sup>3</sup> and m<sup>3</sup> to the nearest hundredth ft<sup>3</sup> and m<sup>3</sup>. This change is needed to be consistent with WDS reporting and with the values being reported in the *Final LWA TRU Waste Volume* column. The Permittees are also revising the note at the bottom of the table to state that "*The final TRU mixed waste and final LWA TRU waste volumes in Table 4.1.1 are reported to the nearest hundredth ft<sup>3</sup> and m<sup>3</sup>.*" This change is needed to ensure consistency in the volumes reported in the two columns and to ensure consistency in future reporting.

Revised Permit Text:

<b>Table 4.1.1 - Underground HWDUs</b>				
<b>Description<sup>1</sup></b>	<b>Waste Type</b>	<b>Maximum TRU Mixed Waste Capacity<sup>2</sup></b>	<b>Final TRU Mixed Waste Volume<sup>3</sup></b>	<b>Final LWA TRU Waste Volume<sup>4</sup></b>
Panel 1	CH TRU	636,000 ft <sup>3</sup> (18,000 m <sup>3</sup> )	<del>370,800</del> <u>370,685.70</u> ft <sup>3</sup> ( <del>10,500</del> <u>10,496.65</u> m <sup>3</sup> )	<u>267,096.48</u> ft <sup>3</sup> ( <u>7,563.33</u> m <sup>3</sup> )
Panel 2	CH TRU	636,000 ft <sup>3</sup> (18,000 m <sup>3</sup> )	<del>635,600</del> <u>635,581.72</u> ft <sup>3</sup> ( <del>17,998</del> <u>17,997.67</u> m <sup>3</sup> )	<u>462,712.19</u> ft <sup>3</sup> ( <u>13,102.55</u> m <sup>3</sup> )
Panel 3	CH TRU	662,150 ft <sup>3</sup> (18,750 m <sup>3</sup> )	<del>603,600</del> <u>603,600.40</u> ft <sup>3</sup> ( <del>17,092</del> <u>17,092.06</u> m <sup>3</sup> )	<u>348,299.73</u> ft <sup>3</sup> ( <u>9,862.75</u> m <sup>3</sup> )
Panel 4	CH TRU	662,150 ft <sup>3</sup> (18,750 m <sup>3</sup> )	<del>503,500</del> <u>503,500.27</u> ft <sup>3</sup> ( <del>14,258</del> <u>14,257.54</u> m <sup>3</sup> )	<u>367,973.88</u> ft <sup>3</sup> ( <u>10,419.86</u> m <sup>3</sup> )
	RH TRU	12,570 ft <sup>3</sup> (356 m <sup>3</sup> )	<del>6,200</del> <u>6,223.15</u> ft <sup>3</sup> ( <del>176</del> <u>176.22</u> m <sup>3</sup> )	<u>2,974.91</u> ft <sup>3</sup> ( <u>84.24</u> m <sup>3</sup> )
Panel 5	CH TRU	662,150 ft <sup>3</sup> (18,750 m <sup>3</sup> )	<del>562,500</del> <u>562,454.22</u> ft <sup>3</sup> ( <del>15,927</del> <u>15,926.93</u> m <sup>3</sup> )	<u>427,749.61</u> ft <sup>3</sup> ( <u>12,112.52</u> m <sup>3</sup> )
	RH TRU	15,720 ft <sup>3</sup> (445 m <sup>3</sup> )	<del>8,300</del> <u>8,297.53</u> ft <sup>3</sup> ( <del>235</del> <u>234.96</u> m <sup>3</sup> )	<u>5,416.21</u> ft <sup>3</sup> ( <u>153.37</u> m <sup>3</sup> )
Panel 6	CH TRU	662,150 ft <sup>3</sup> (18,750 m <sup>3</sup> )	<del>510,900</del> <u>510,911.06</u> ft <sup>3</sup> ( <del>14,468</del> <u>14,467.39</u> m <sup>3</sup> )	<u>403,569.65</u> ft <sup>3</sup> ( <u>11,427.82</u> m <sup>3</sup> )
	RH TRU	18,860 ft <sup>3</sup> (534 m <sup>3</sup> )	<del>7,600</del> <u>7,578.53</u> ft <sup>3</sup> ( <del>215</del> <u>214.60</u> m <sup>3</sup> )	<u>3,990.20</u> ft <sup>3</sup> ( <u>112.99</u> m <sup>3</sup> )
Panel 7	CH TRU	662,150 ft <sup>3</sup> (18,750 m <sup>3</sup> )		
	RH TRU	22,950 ft <sup>3</sup> (650 m <sup>3</sup> )		
Panel 8	CH TRU	662,150 ft <sup>3</sup> (18,750 m <sup>3</sup> )		
	RH TRU	22,950 ft <sup>3</sup> (650 m <sup>3</sup> )		
<b>Total</b>	<b>CH TRU</b>	<b>5,244,900 ft<sup>3</sup></b> <b>(148,500 m<sup>3</sup>)</b>		
	<b>RH TRU</b>	<b>93,050 ft<sup>3</sup></b> <b>(2,635 m<sup>3</sup>)</b>		

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<sup>1</sup> The area of each panel is approximately 124,150 ft<sup>2</sup> (11,533 m<sup>2</sup>).

<sup>2</sup> "Maximum TRU Mixed Waste Capacity" is the maximum TRU mixed waste volume that may be emplaced in each panel. This volume is calculated based on the gross internal volume of the outermost disposal containers.

<sup>3</sup> Final TRU Mixed Waste Volume is calculated based on the gross internal volume of the outermost disposal containers. The volume listed here is reported pursuant to Permit Part 6, Section 6.10.1.

<sup>4</sup> Final LWA TRU Waste Volume is calculated based on the volume of TRU waste inside a disposal container. The volume listed here is tracked and reported by the DOE internally pursuant to the WIPP Land Withdrawal Act total capacity limit of 6.2 million ft<sup>3</sup> (175,564 m<sup>3</sup>) of TRU waste (Pub. L. 102-579, as amended) and is included here for informational purposes. A link to the LWA TRU Waste Volume is posted on [www.wipp.energy.gov](http://www.wipp.energy.gov).

Note: The final TRU mixed waste and final LWA TRU waste volumes ~~reported~~ in Table 4.1.1 ~~in ft<sup>3</sup>~~ are ~~rounded~~ reported to the nearest ~~hundredth~~ 100 ft<sup>3</sup> and m<sup>3</sup>.