



Department of Energy

Carlsbad Field Office

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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,

Signatures on file

Todd Shrader, Manager
Carlsbad Field Office

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

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 ³	cubic foot
LWA	Land Withdrawal Act
m ³	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 (ft³) and nearest hundredth cubic meter (m³) 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 ft³ and m³ to the nearest hundredth ft³ and m³ . 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 ft³ and m³.</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 (**ft³**) and nearest hundredth cubic meter (**m³**) 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 **ft³** and **m³** to the nearest hundredth **ft³** and **m³**. 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 ft³ and m³.*”

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 **ft³** and **m³** to the nearest hundredth **ft³** and **m³**. 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 ft³ and m³.*” 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:

Table 4.1.1 - Underground HWDUs				
Description¹	Waste Type	Maximum TRU Mixed Waste Capacity²	Final TRU Mixed Waste Volume³	Final LWA TRU Waste Volume⁴
Panel 1	CH TRU	636,000ft ³ (18,000 m ³)	370,800 <u>370,685.70</u> ft ³ (10,500 <u>10,496.65</u> m ³)	<u>267,096.48 ft³</u> <u>(7,563.33 m³)</u>
Panel 2	CH TRU	636,000 ft ³ (18,000 m ³)	635,600 <u>635,581.72</u> ft ³ (17,998 <u>17,997.67</u> m ³)	<u>462,712.19 ft³</u> <u>(13,102.55 m³)</u>
Panel 3	CH TRU	662,150 ft ³ (18,750 m ³)	603,600 <u>603,600.40</u> ft ³ (17,092 <u>17,092.06</u> m ³)	<u>348,299.73 ft³</u> <u>(9,862.75 m³)</u>
Panel 4	CH TRU	662,150 ft ³ (18,750 m ³)	503,500 <u>503,500.27</u> ft ³ (14,258 <u>14,257.54</u> m ³)	<u>367,973.88 ft³</u> <u>(10,419.86 m³)</u>
	RH TRU	12,570 ft ³ (356 m ³)	6,200 <u>6,223.15</u> ft ³ (176 <u>176.22</u> m ³)	<u>2,974.91 ft³</u> <u>(84.24 m³)</u>
Panel 5	CH TRU	662,150 ft ³ (18,750 m ³)	562,500 <u>562,454.22</u> ft ³ (15,927 <u>15,926.93</u> m ³)	<u>427,749.61 ft³</u> <u>(12,112.52 m³)</u>
	RH TRU	15,720 ft ³ (445 m ³)	8,300 <u>8,297.53</u> ft ³ (235 <u>234.96</u> m ³)	<u>5,416.21 ft³</u> <u>(153.37 m³)</u>
Panel 6	CH TRU	662,150 ft ³ (18,750 m ³)	510,900 <u>510,911.06</u> ft ³ (14,468 <u>14,467.39</u> m ³)	<u>403,569.65 ft³</u> <u>(11,427.82 m³)</u>
	RH TRU	18,860 ft ³ (534 m ³)	7,600 <u>7,578.53</u> ft ³ (215 <u>214.60</u> m ³)	<u>3,990.20 ft³</u> <u>(112.99 m³)</u>
Panel 7	CH TRU	662,150 ft ³ (18,750 m ³)		
	RH TRU	22,950 ft ³ (650 m ³)		
Panel 8	CH TRU	662,150 ft ³ (18,750 m ³)		
	RH TRU	22,950 ft ³ (650 m ³)		
Total	CH TRU	5,244,900 ft³ (148,500 m³)		
	RH TRU	93,050 ft³ (2,635 m³)		

¹ The area of each panel is approximately 124,150 ft² (11,533 m²).

² “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.

³ 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.

⁴ 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 ft³ (175,564 m³) 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.

Note: The final TRU mixed waste and final LWA TRU waste volumes reported in Table 4.1.1 in ft³ are rounded reported to the nearest hundredth 100 ft³ and m³.