

Class 2 Permit Modification Request

Allow the WIPP Operating Record to be Maintained Electronically

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

**WIPP HWFP #NM4890139088-TSDF
November 2007**

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Overview of the Permit Modification Request

1 This document contains a Class 2 Permit Modification Request (**PMR**) for the Waste Isolation Pilot
2 Plant (**WIPP**) Hazardous Waste Facility Permit (**HWFP**), Number NM4890139088-TSDF, hereinafter
3 referred to as the WIPP HWFP.
4

5 This PMR is being submitted by the U.S. Department of Energy (**DOE**), Carlsbad Field Office
6 (**CBFO**) and Washington TRU Solutions LLC (**WTS**), collectively referred to as the Permittees, in
7 accordance with the WIPP HWFP, Condition I.B.1 (20.4.1.900 New Mexico Administrative Code
8 (**NMAC**) incorporating Title 40, Code of Federal Regulations (**CFR**), §270.42(b)). This modification
9 is requested for the following item:

- 10 • allow the WIPP operating record to be maintained electronically.

11
12
13 The proposed change will not reduce the ability of the Permittees to provide continued protection
14 to human health and the environment.
15

16 The requested modification to the WIPP HWFP and related supporting documents are provided in
17 this PMR. The proposed modification to the text of the WIPP HWFP have been identified using a
18 double underline, and a ~~strikeout~~ font for deleted information. All direct quotations are indicated by
19 italicized text. The following information specifically addresses how compliance has been achieved
20 with the WIPP HWFP requirement, Permit Condition I.B.1 for submission of this Class 2 PMR.
21
22

- 23 **1. 20.4.1.900 NMAC (incorporating 40 CFR §270.42(b)(1)(i)) requires the applicant**
24 **to describe the exact change to be made to the permit conditions and**
25 **supporting documents referenced by the permit.**
26

27 This document proposes to make a single change to the HWFP. This change is indicated below:

- 28 • The modification proposes to allow the WIPP Operating Record to be maintained in
29 an unalterable electronic format which will be searchable. The hard copies of the
30 Operating Record will still be maintained at the WIPP Records Archive facility for the
31 length of time currently established in the HWFP. Paper copies of any electronic file
32 will be made available to the NMED upon request
33
34

35 Details of these revisions are summarized in Attachment A of this PMR.
36

37 The proposed changes to the WIPP HWFP text are presented in Attachment B of this PMR.
38

- 39 **2. 20.4.1.900 NMAC (incorporating 40 CFR §270.42(a)(3)) requires the applicant**
40 **to identify that the modification is a Class 1 modification.**
41

42 The proposed modification is classified as a Class 1 permit modification for the reasons indicated
43 below:
44

1 *"Changes in procedures for maintaining the operating record"* in accordance with
2 20.4.1.900 NMAC incorporating 40 CFR §270.42 Appendix I, Item B.3.

3
4 However, in accordance with 20.4.1.900 NMAC incorporating 40 CFR §270.42 (a)(3), the
5 Permittees have elected to follow the procedures of 20.4.1.900 NMAC incorporating 40 CFR
6 §270.42 (b) and manage this change as a Class 2 modification.

7
8 **3. 20.4.1.900 NMAC (incorporating 40 CFR §270.42(b)(1)(iii)) requires the applicant**
9 **to explain why the modification is needed.**

10
11 The Permittees maintain paper records as part of the WIPP Operating Record. Because
12 of numerous provisions in the WIPP HWFP regarding records required to be in the WIPP
13 Operating Record (e.g., Section B-7) which include such items as the generator site waste
14 characterization program and the Permittees waste confirmation program, the volume of
15 these records is large. For example, a typical batch data report for a single shipment can
16 contain over 300 pages. The waste confirmation program alone generates about twelve full
17 filing cabinets of paper records each year. Not only do these records take up large amounts
18 of space they are also difficult to maintain in an easily retrievable format (e.g., entire
19 shipments are easy to retrieve, however, specific records within a shipment are more
20 difficult to locate).

21
22 The Permittees estimate the WIPP Operating Record at over 5 million sheets of paper. This
23 is equivalent to over 50 four-drawer filing cabinets. From waste confirmation records alone
24 it is estimated that this number will double in the next five years.

25
26 The ability to maintain the WIPP Operating Record as an unalterable electronic record
27 means it is a record that once created, cannot be changed by any user (e.g., a stand alone
28 server using a read-only searchable format). Maintaining the WIPP Operating Record
29 electronically will not only reduce the volume of records that must be stored at the WIPP
30 facility it will facilitate the creation of a user friendly records system.

31
32 In the draft hazardous waste permits for the Sandia National Laboratory and the Los Alamos
33 National Laboratory the NMED has included language which enables both facilities to
34 maintain their operating records in an electronic format.

35
36 The Permittees will maintain the hard copies of the WIPP Operating Record at the WIPP
37 Records Archive facility for the length of time currently required in the HWFP.

38
39
40 **4. 20.4.1.900 NMAC (incorporating 40 CFR §270.42 (b)(1)(iv)) requires the**
41 **applicant to provide the applicable information required by 40 CFR §§270.13**
42 **through 270.21, 270.62, and 270.63.**

43
44 The regulatory crosswalk describes those portions of the WIPP HWFP that are affected by
45 this PMR. Where applicable, regulatory citations in this modification reference Title 20,

1 Chapter 4, Part 1, NMAC, revised June 14, 2000, incorporating the CFR, Title 40 (40 CFR
2 Parts 264 and 270). 40 CFR §§270.16 through 270.22, 270.62, 270.63, and 270.66 are not
3 applicable at WIPP. Consequently, they are not listed in the regulatory crosswalk table. 40
4 CFR §270.23 is applicable to the WIPP Hazardous Waste Disposal Units (**HWDUs**). This
5 modification does not impact the conditions associated with the HWDUs.

6
7 **5. 20.4.1.900 NMAC (incorporating 40 CFR §270.11(d)(1) and 40 CFR §270.30(k))**
8 **requires that any person signing applications and reports must certify the**
9 **document in accordance with 20.4.1.900 NMAC.**

10
11 The transmittal letter for this PMR contains the signed certification statement in accordance
12 with Module I.F of the WIPP HWFP.

Regulatory Crosswalk

Regulatory Citation(s) 20.4.1.900 NMAC (incorporating 40 CFR Part 270)	Regulatory Citation(s) 20.4.1.500 NMAC (incorporating 40 CFR Part 264)	Description of Requirement	Added or Clarified Information		
			Section of the HWFP	Yes	No
§270.13		Contents of Part A permit application	Attachment O, Part A		✓
§270.14(b)(1)		General facility description	Attachment A		✓
§270.14(b)(2)	§264.13(a)	Chemical and physical analyses	Attachment B		✓
§270.14(b)(3)	§264.13(b)	Development and implementation of waste analysis plan	Attachment B		✓
	§264.13(c)	Off-site waste analysis requirements	Attachment B		✓
§270.14(b)(4)	§264.14(a-c)	Security procedures and equipment	Attachment C		✓
§270.14(b)(5)	§264.15(a-d)	General inspection requirements	Attachment D		✓
	§264.174	Container inspections	Attachment D		✓
§270.23(a)(2)	§264.602	Miscellaneous units inspections	Attachment D		✓
§270.14(b)(6)		Request for waiver from preparedness and prevention requirements of Part 264 Subpart C	NA		
§270.14(b)(7)	264 Subpart D	Contingency plan requirements	Attachment F		✓
	§264.51	Contingency plan design and implementation	Attachment F		✓
	§264.52 (a) & (c-f)	Contingency plan content	Attachment F		✓
	§264.53	Contingency plan copies	Attachment F		✓
	§264.54	Contingency plan amendment	Attachment F		✓
	§264.55	Emergency coordinator	Attachment F		✓
	§264.56	Emergency procedures	Attachment F		✓
§270.14(b)(8)		Description of procedures, structures or equipment for:	Attachment E		✓
§270.14(b)(8) (i)		Prevention of hazards in unloading operations (e.g., ramps and special forklifts)	Attachment E		✓
§270.14(b)(8) (ii)		Runoff or flood prevention (e.g., berms, trenches, and dikes)	Attachment E		✓
§270.14(b)(8) (iii)		Prevention of contamination of water supplies	Attachment E		✓
§270.14(b)(8) (iv)		Mitigation of effects of equipment failure and power outages	Attachment E		✓
§270.14(b)(8) (v)		Prevention of undue exposure of personnel (e.g., personal protective equipment)	Attachment E		✓
§270.14(b)(8) (vi) §270.23(a)(2)	§264.601	Prevention of releases to the atmosphere	Module II Module IV Attachment M2 Attachment N		✓
	264 Subpart C	Preparedness and Prevention	Attachment E		✓
	§264.31	Design and operation of facility	Attachment E		✓

Regulatory Citation(s) 20.4.1.900 NMAC (incorporating 40 CFR Part 270)	Regulatory Citation(s) 20.4.1.500 NMAC (incorporating 40 CFR Part 264)	Description of Requirement	Added or Clarified Information		
			Section of the HWFP	Yes	No
	§264.32	Required equipment	Attachment E Attachment F		✓
	§264.33	Testing and maintenance of equipment	Attachment D		✓
	§264.34	Access to communication/alarm system	Attachment E		✓
	§264.35	Required aisle space	Attachment E		✓
	§264.37	Arrangements with local authorities	Attachment F		✓
§270.14(b)(9)	§264.17(a-c)	Prevention of accidental ignition or reaction of ignitable, reactive, or incompatible wastes	Attachment E		✓
§270.14(b) (10)		Traffic pattern, volume, and controls, for example: Identification of turn lanes Identification of traffic/stacking lanes, if appropriate Description of access road surface Description of access road load- bearing capacity Identification of traffic controls	Attachment G		✓
§270.14(b) (11)(i) and (ii)	§264.18(a)	Seismic standard applicability and requirements	Part B, Rev. 6 Chapter B		✓
§270.14(b) (11)(iii-v)	§264.18(b)	100-year floodplain standard	Part B, Rev. 6 Chapter B		✓
	§264.18(c)	Other location standards	Part B, Rev. 6 Chapter B		✓
§270.14(b) (12)	§264.16(a-e)	Personnel training program	Permit Module II Attachment H		✓
§270.14(b) (13)	264 Subpart G	Closure and post-closure plans	Attachment I & J		✓
§270.14(b)(13)	§264.111	Closure performance standard	Attachment I		✓
§270.14(b)(13)	§264.112(a), (b)	Written content of closure plan	Attachment I		✓
§270.14(b)(13)	§264.112(c)	Amendment of closure plan	Attachment I		✓
§270.14(b)(13)	§264.112(d)	Notification of partial and final closure	Attachment I		✓
§270.14(b)(13)	§264.112(e)	Removal of wastes and decontamination/dismantling of equipment	Attachment I		✓
§270.14(b)(13)	§264.113	Time allowed for closure	Attachment I		✓
§270.14(b)(13)	§264.114	Disposal/decontamination	Attachment I		✓
§270.14(b)(13)	§264.115	Certification of closure	Attachment I		✓
§270.14(b)(13)	§264.116	Survey plat	Attachment I		✓
§270.14(b)(13)	§264.117	Post-closure care and use of property	Attachment J		✓
§270.14(b)(13)	§264.118	Post-closure plan; amendment of plan	Attachment J		✓

	Regulatory Citation(s) 20.4.1.900 NMAC (incorporating 40 CFR Part 270)	Regulatory Citation(s) 20.4.1.500 NMAC (incorporating 40 CFR Part 264)	Description of Requirement	Added or Clarified Information		
				Section of the HWFP	Yes	No
1	§270.14(b)(13)	§264.178	Closure/ containers	Attachment I		✓
2	§270.14(b)(13)	§264.601	Environmental performance standards-Miscellaneous units	Attachment I		✓
3	§270.14(b)(13)	§264.603	Post-closure care	Attachment I		✓
4	§270.14(b)(14)	§264.119	Post-closure notices	Attachment J		✓
5	§270.14(b)(15)	§264.142	Closure cost estimate	NA		✓
6		§264.143	Financial assurance	NA		✓
7	§270.14(b)(16)	§264.144	Post-closure cost estimate	NA		✓
8		§264.145	Post-closure care financial assurance	NA		✓
9	§270.14(b)(17)	§264.147	Liability insurance	NA		✓
10	§270.14(b)(18)	§264.149-150	Proof of financial coverage	NA		✓
11	§270.14(b)(19)(i), (vi), (vii), and (x)		Topographic map requirements Map scale and date Map orientation Legal boundaries Buildings Treatment, storage, and disposal operations Run-on/run-off control systems Fire control facilities	Attachment O Part A		✓
12						
13	§270.14(b)(19)(ii)	§264.18(b)	100-year floodplain	Attachment O Part A		✓
14	§270.14(b)(19)(iii)		Surface waters	Attachment O Part A		✓
15	§270.14(b)(19)(iv)		Surrounding Land use	Attachment O Part A		✓
16	§270.14(b)(19)(v)		Wind rose	Attachment O Part A		✓
17	§270.14(b)(19)(viii)	§264.14(b)	Access controls	Attachment O Part A		✓
18	§270.14(b)(19)(ix)		Injection and withdrawal wells	Attachment O Part A		✓
19	§270.14(b)(19)(xi)		Drainage on flood control barriers	Part B, Rev. 6 Chapter B, E, F		✓

Regulatory Citation(s) 20.4.1.900 NMAC (incorporating 40 CFR Part 270)	Regulatory Citation(s) 20.4.1.500 NMAC (incorporating 40 CFR Part 264)	Description of Requirement	Added or Clarified Information		
			Section of the HWFP	Yes	No
§270.14(b)(19)(xii)		Location of operational units	Part B, Rev. 6 Chapter B		✓
§270.14(b)(20)		Other federal laws Wild and Scenic Rivers Act National Historic Preservation Act Endangered Species Act Coastal Zone Management Act Fish and Wildlife Coordination Act Executive Orders	Part B, Rev. 6 Chapter K		✓
§270.15	§264 Subpart I	Containers	Attachment M1		✓
	§264.171	Condition of containers	Attachment M1		✓
	§264.172	Compatibility of waste with containers	Attachment M1		✓
	§264.173	Management of containers	Attachment M1		✓
	§264.174	Inspections	Attachment D Attachment M1		✓
§270.15(a)	§264.175	Containment systems	Attachment M1		✓
§270.15(c)	§264.176	Special requirements for ignitable or reactive waste	Attachment E Permit Module II		✓
§270.15(d)	§264.177	Special requirements for incompatible wastes	Attachment E Permit Module II		✓
	§264.178	Closure	Attachment I		✓
§270.15(e)	§264.179	Air emission standards	Attachment E Attachment N		✓
§270.23	264 Subpart X	Miscellaneous units	Attachment M2		✓
§270.23(a)	§264.601	Detailed unit description	Attachment M2		✓
§270.23(b)	§264.601	Hydrologic, geologic, and meteorologic assessments	Permit Module IV Attachment M2		✓
§270.23(c)	§264.601	Potential exposure pathways	Permit Module IV Attachment M2 Attachment N		✓
§270.23(d)		Demonstration of treatment effectiveness	Permit Module IV Attachment M2 Attachment N		✓
	§264.602	Monitoring, analysis, inspection, response, reporting, and corrective action	Permit Module IV Attachment M2 Attachment N		✓
	§264.603	Post-closure care	Attachment J Attachment J1		✓
	264 Subpart E	Manifest system, record keeping, and reporting	Permit Module I Permit Module II Permit Module IV Attachment B	✓	

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Attachment A
Table of Changes

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Table of Changes

Affected Permit Section	Explanation for Change
a.1. Module II.K.1	Text has been revised to reflect that the operating record may be maintained in either written form or in an electronic form.

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Attachment B
Proposed Revised Permit Text

1 **Proposed Revised Permit Text:**

2
3 a.1 Module II, Condition II.K.1

4
5 Operating Record

6
7 The Permittees shall maintain a written operating record at the facility, as
8 required by 20.4.1.500 NMAC (incorporating 40 CFR §264.73(a)). The written
9 operating record shall include all information required under 20.4.1.500 NMAC
10 (incorporating 40 CFR §264.73(b)) subject to the limitations on the storage of
11 classified information as discussed in Permit Attachment B-1c. Unless
12 specifically prohibited by the Permit, an electronic record that cannot be altered
13 by the user and capable of producing a paper copy shall be deemed to be a
14 written record. The Permittees shall maintain the operating record until closure
15 of the facility.
16