

1 **Introduction**  
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3 The Waste Isolation Pilot Plant (**WIPP**) is a facility designed for the management, storage and  
4 disposal of transuranic (**TRU**) mixed waste. Both contact-handled (**CH**) and remote-handled  
5 (**RH**) TRU mixed wastes are permitted for storage and disposal at the WIPP facility. The WIPP  
6 facility consists of a 16-section Federal land area under the jurisdiction of the US Department of  
7 Energy (**DOE**). The WIPP is a mined geologic repository, defined as a "miscellaneous unit"  
8 under 40 CFR §260.10. "Miscellaneous unit" means a hazardous waste management unit where  
9 hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface  
10 impoundment, waste pile, land treatment unit, landfill, incinerator, containment building, boiler,  
11 industrial furnace, or underground injection well with appropriate technical standards under  
12 40 CFR Part 146, corrective action management unit, or unit eligible for research, development,  
13 and demonstration permit under 40 CFR §270.65. The WIPP is a deep, geologic repository  
14 designed for the disposal of TRU mixed waste. Some of the TRU mixed wastes disposed of at  
15 the WIPP contain hazardous wastes as co-contaminants. The geologic repository has been  
16 divided into ten discrete hazardous waste disposal units (**HWDUs**) which are being permitted  
17 under 40 CFR Part 264, Subpart X. Additionally, the WIPP has a Waste Handling Building  
18 divided into CH and RH hazardous waste management units (**HWMUs**) and outside of the  
19 Waste Handling Building there is another HWMU know as the Parking Area Unit. These three  
20 HWMUs are permitted as storage units.  
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22 This WIPP Hazardous Waste Facility Permit (**Permit**) Renewal Application (Renewal  
23 Application) is submitted to address the requirements of the New Mexico Administrative Code  
24 Title 20, Chapter 4, Part 1 (20.4.1 NMAC) specific to the hazardous mixed waste operations of  
25 the WIPP. The WIPP has three permitted storage units and seven permitted underground  
26 disposal units, known as panels.  
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28 Pursuant to the New Mexico Hazardous Waste Regulations and the WIPP Hazardous Waste  
29 Facility Permit, Permit Condition I.E.3.:

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31 *If the Permittees wish to continue an activity regulated by this Permit after the*  
32 *expiration date of this Permit, the Permittees shall apply for and obtain a new*  
33 *Permit. The Permittees shall submit an application for a new Permit at least one*  
34 *hundred eighty (180) calendar days before the expiration date of this Permit.*  
35 *[20.4.1.900 NMAC (incorporating 40 CFR §270.50(a))]*  
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37 The term of the Permit is ten years from the date of issuance of the Permit. The WIPP Renewal  
38 Application is due to the New Mexico Environment Department (**NMED**) no later than May 30,  
39 2009. Part A of the Renewal Application must include the information required by 40 CFR  
40 §270.13, *Contents of Part A of the permit application*. Additionally, Part B of the Renewal  
41 Application must include general WIPP information required by 40 CFR §270.14, *Contents of*  
42 *Part B: General Requirements*, as well as WIPP specific information required by 40 CFR  
43 §270.15, *40 Specific Part B information requirements for containers*; and CFR §270.23, *Specific*  
44 *Part B information requirements for miscellaneous units*.  
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1 Furthermore, in this Renewal Application the Permittees are seeking the following changes:  
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- 3 • Authorization to dispose of TRU and TRU mixed-waste in Panel 8
- 4 • Formal inclusion of the WIPP Mine Ventilation Rate Monitoring Plan
- 5 • Change “Generator/Storage Site” to “Certified Characterization Program” to identify  
6 responsibilities for characterizing waste to the WIPP Waste Analysis Plan (**WAP**).
- 7 • Delineate CCP and AMWTP as the only certified characterization programs
- 8 • Change “Site” to U. S. Department of Energy (DOE) TRU waste site or DOE contract  
9 TRU waste site (i.e., TRU waste site)
- 10 • Delete “conservative” application of hazardous waste numbers and replace with  
11 ”appropriate”
- 12 • Clarify Liquid Waste Prohibition
  - 13 ○ Clarify how the prohibition applies to internal containers, payload containers and  
14 internal containers inside over pack containers
  - 15 ○ Clarify how the prohibition applies to debris items such as tubing
- 16 • Removed the distinction between newly generated waste characterization requirements  
17 and retrievably stored waste
- 18 • Address VE Methodology
  - 19 ○ Eliminate “VE Technique”
  - 20 ○ Eliminate “VE in lieu of radiography”
  - 21 ○ Clarify that only two methods exist for documenting VE
  - 22 ○ Add a training requirement for VE
- 23 • Revise language requiring a minimum of 5 samples to be obtained from waste streams  
24 that are 5 containers or less
- 25 • Revise the solids sampling language DQO that will allow a representative/random sample  
26 to obtained when non-coring samples are being obtained
- 27 • Move Core sampling methodology from the DQOs in Attachment B3, Quality Assurance  
28 Objectives and Data Validation Techniques for Waste Characterization Sampling and  
29 Analytical Methods, to Attachment B1, Waste Characterization Sampling Methods
- 30 • Clarify portions of the AKSD Dispute Resolution:
  - 31 ○ If a certified characterization program does not submit a Determination Request,  
32 or if the Permittees do not approve a Determination Request, or if NMED finds  
33 that the Permittees’ provisional approval of a Determination Request is  
34 inadequate and the Permittees either do not seek dispute resolution or are  
35 unsuccessful in the dispute resolution process, the certified characterization  
36 program shall perform radiography or VE on 100% of the containers in a waste  
37 stream and chemical sampling and analysis on a representative sample of the  
38 waste stream using headspace gas sampling and analysis (for debris waste) or  
39 solids sampling and analysis (for homogeneous solid or soil/gravel waste) as  
40 specified in Renewal Application Appendices B1 and B2
- 41 • Clarified discussion on Representative Sampling:
  - 42 ○ Representativeness of containers selected for headspace gas sampling will be  
43 validated by the certified characterization program and by the Permittees during

1 an audit (Permit Attachment B6) via examination of documentation that shows  
2 that random samples were collected.

- 3 ○ Representativeness is a quality characteristic that expresses the degree to which a  
4 sample or group of samples represent the population being studied, the random  
5 sampling of waste streams ensures representativeness. (same wording for  
6 homogenous solids)

- 7 ● Revise Table B-1 to summarize the requirements for HSGS analysis and totals analysis  
8 ● Revise the WAP Reporting Requirement for Non-Administrative Non-Conformances  
9 identified at the SPM level from 5 calendar days to 7 calendar days.  
10 ● Correct B1-4 to change “Visual Examination” to “packaging records” as indicated below  
11 ○ Revise line 1 in paragraph 4 in this section as follows; “Visual examination  
12 records. Packaging records may be used for characterization of TRU mixed  
13 waste”  
14 ● Deleted language requiring the WSPF and CIS for the waste stream to be transmitted  
15 prior to loading. There are other controls that prevent from happening  
16 ● Moved core sampling methodology from the DQOs to B1, Waste Characterization  
17 Sampling Methods  
18 ● Revised language requiring confirmation prior to shipment to “prior to receipt” as the  
19 Permit is for storage and disposal. This change corrects the permit language to reflect the  
20 Permit/RCRA requirements. Shipping requirements are governed by the DOT and the  
21 NRC  
22 ● Deleted redundant text to simplify implementation and future maintenance of the Permit  
23 ● Deleted language requiring the WSPF and CIS for the waste stream to be transmitted  
24 prior to loading in B-0c  
25 ● In B-1c in reference to container venting, deleted the following; “or development of  
26 conditions within a container that would lead to the development of ignitable, corrosive,  
27 reactive or other characteristic  
28 ● Deleted non TC constituents from target analyte lists from all tables. Also deleted TIC  
29 evaluation requirements  
30 ● Deleted an unnecessary reporting requirement for discrepancies related to WSPFs  
31 reviews; if a waste stream profile form is not approved then the waste cannot be shipped  
32 to WIPP regardless of the discrepancy  
33 ● Revised Table B-1  
34 ● Make Class 1 technical edits (i.e., typographical/editorial/reference) in Renewal  
35 Application chapters and appendices affected by proposed Renewal Application changes  
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37 Portions of the WIPP Hazardous Waste Facility Permit, Permit № NM4890139088-TSDF, are  
38 incorporated into the Renewal Application by reference. In instances where the use of terms  
39 “Permit Module” or “Permit Attachment” are used, it refers to those Permit sections in place at  
40 the time of the submittal of the Renewal Application to the NMED. When referencing the  
41 Renewal Application or original Part B Permit Application, the terms “chapters” and  
42 “appendices” are used to distinguish between the current Permit and permit applications. The  
43 Renewal Application contains no “Modules” as the NMED writes the Modules. Any reference

1 to a permit condition or requirement is to be interpreted as the permit condition as of the date of  
2 the formal Renewal Application submittal.

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4 Additionally, the Permittees are representing proposed changed text from the current Permit in  
5 ~~redline/strike-out~~ format. For those who wish to print the document and do not have a color  
6 printer, proposed changed text is also double underlined and shaded so that proposed text can be  
7 readily identified. For example, the resulting text appears as: new proposed text.

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9 The version of the Permit used to create the Renewal Application is the version the NMED has  
10 posted on its web page as of May 29, 2009, and includes any approved permit modifications.

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